College Curriculum Committee
Meeting Minutes
Tuesday, February 7, 2012
2:04 p.m. – 3:35 p.m.
President's Conference Room

Item	Discussion
1. Minutes: January 17, 2012	**M/S** to approve minutes as written. (Lankford, Hartwell) **Approved.**
2. Announcements a. Reminder: ASCCC Accreditation Institute, 2/10 & 11 b. Curr Sheet Due Date Reminder c. New Course Form d. New Course Announcements e. Other	**Speaker: Holcroft** a. This conference will be at the Sheraton Park Hotel, Anaheim. Great opportunity to share insight about accreditation process with other faculty b. Due date for Curriculum Sheets is March 1st. c. Suggestion was made that perhaps there should be some short instructions e.g. "this form should be completed as soon as faculty are planning a new course outline." Reminder that it is not the purview of the CCC to decide whether a course should be written/taught and we should not require the faculty to defend the need for the course – this is the purview of the division curriculum committees. The objective of the CCC announcement process is to keep all faculty informed about curriculum development across campus, to provide transparency, and promote discussion among discipline faculty particularly with curriculum that might be interdisciplinary. d. Huerta/Fong presented a new series course, ENGL 1S/T, that would give students an alternate path for completing their ENGL 1A requirement. Explained history of the course development at Foothill and that these have already received articulation with UC & CSU, and will be on consent calendar at next CCC meeting for Foothill GE Area II approval. Pending this approval, faculty will need to update all curriculum sheets to include ENGL 1T as an alternative to ENGL 1A to satisfy GE Area II/minimum English proficiency. Noted that this is not the best "Test Case" for the New Course Proposal Form since this course has actually already been approved and articulated, etc. ei. California recently adopted new standards for K-12 English and Math. CA Department of Education is currently in process of developing assessment mechanisms for the new standards and have asked math and English faculty to provide feedback. CH has the form but it must be done by 2/9. Holcroft noted the absurdity of the timeline. eii. Holcroft distributed Chronicle of Higher Education article regarding best practices for community college student success. It refers to another doc called "A Matter of Degrees" that reflects the same ideas as the Student Success Task Force. Will distribute electronically. Called attention to the best practice of developing experiential learning curriculum/opportunities and offered help/support to faculty interested in pursuing these avenues.
3. Report out from PSME Division	**Speaker: Armstrong, Francisco & Knobel** How the PSME Curriculum Committee is structured: their division meets once per quarter, and then departments

	meet individually on a more frequent basis, about once a month. The CCC reps meet on the off-weeks when there is no CCC meeting to work on curriculum, take care of the administrative requirements within the C3MS, etc. A lot of the work is done electronically. PSME has developed a Transfer degree for Mathematics (currently w/Instruction office); Statway™ is continuing; the Algebra series has been revamped; there will be a retreat on Thursday where they are going to discuss integration of technology and curriculum. Computer Science is still integrating into the division. Computer Science and Enterprise Networking degrees are being revamped. Physics has added new courses (the 5A, B & C series is a more drawn out version of the 4A & B series); Physics has also added 2AM, 2BM & 2CM to meet the needs of some 4-yrs institutions Calculus requirements. CHEM 70 was developed as a sort of study skills course, attempting to keep student success up and not lose beginning students as CHEM 1A is one of the first courses in the series and attrition at the beginning level is bad. Armstrong noted it might be a good candidate for a "Special Topics" format. PSE 41, 42, 43 Class Practices gives students the opportunity to experience teaching in high school or elementary schools, (Holcroft noted this is excellent example of experiential learning and hope to agendize for further discussion at a future meeting). ENGR 6 has been reactivated using some new technology that will be able to generate three-dimensional results. Created some new energy and society courses. These could perhaps serve as cornerstone to a GE track in sustainability/green technology. Workforce development areas are being re-written and upgraded. Have had a lot of interest from both companies and students as we've placed interns in our service area.
4. Consent Calendar: a. General Ed Applications b. Stand Alone Applications	**Speaker: Holcroft** • Pull from Consent calendar the following Stand Alone applications- MDIA 3A, 3B, VART 8. • Remaining consent calendar: *General Ed Apps:* COMM 1AH, 1BH, 2, 3, 54, 55, ENGL 1B, 1BH, PHIL 1, 7, 50 *Stand Alone Apps:* MDIA 1, 3C, 4, 5, 9, 15, 20, 21, 30, 31, 33, 40, 52, 81B, 86, 87, VART 21, 30, 31, 86. o **M/S** to approve, (Starer, Lankford), **Approved**. • Cammin requested and received clarification of the titles and purpose of MDIA 3A, B, and VART 8. **M/S** to approve. (Starer, Lankford) **Approved.**
5. GE Reciprocity Resolution	**Speaker: Holcroft** **M/S** to approve resolution as written. (Horowitz, Ziegenhorn) **Approved**.
6. Special Topics Courses and Independent Study Courses	**Speaker: Holcroft** This is a reference document developed in response to faculty request for clarification about these types of courses. There are concerns about whether these courses may be part of an approved degree and/or certificate, Holcroft noted expectation that courses included for this reason independent study courses are typically not included.
7. GE Subcommittee Membership	**Speaker: Holcroft** Distributed current membership list. Recommended that

	all GE subcommittees have at least three members. Reps encouraged to solicit constituents to participate especially for Areas III, IV, V and VI.
8. Transfer Degrees	**Speaker: Holcroft** The Transfer degrees that are currently being developed are: Studio Art (Ciment), Art History (Pennington), Theatre Arts (MacLeod), and Kinesiology (Shewfelt). History is discussing now and the English department has decided to work on two, English and Creative Writing. Interest in Child Development AA-T but not initiating development yet.
9. Redlining Maximum	**Deferred until the next meeting**

Atendees: K. Armstrong, J. Baker, F. Cammin, B. Cashmore, B. Day, I. Escoto, V. Fong, M. Francisco, R. Hartwell, B. Hanning, C. Holcroft, K. Horowitz, S. Huerta, K. Jordahl, M. Knobel, S. Lankford, A. Lee, D. MacNeil, J. Nguyen, P. Murray, J. Ragey, P. Starer, B. Ziegenhorn
Minutes recorded by: C. Nuñez

2/14/12

FOOTHILL COLLEGE
GENERAL EDUCATION & GRADUATION REQUIREMENTS 2012-2013

The requirements for the Associate in Arts or Associate in Science Degree include completion of (1) a minimum of 90 units in prescribed courses; (2) a minimum of 24 units completed at Foothill College; (3) a grade-point average of 2.0 or better in all college courses including Foothill courses; (4) a major of at least 27 units in a curriculum approved by the Foothill Curriculum Committee; and (5) the seven general education requirements listed below. Students planning to transfer to four-year colleges or universities should also check with a counselor for the specific requirements of those institutions.

Students must successfully complete a minimum of 30-35 units from the courses listed below with at least one course in Humanities, English, Natural Sciences (with lab), Social and Behavioral Sciences, Communication and Analytical Thinking, United States Cultures and Communities, and two courses in Lifelong Understanding from two different academic departments. **Courses may only be used in one area**.

I. Humanities

Arts: ART 1, 2A, 2AH, 2B, 2BH, 2C, 2CH, 2D, 2E, 5B, 12, 14, 36, 45B; DANC 10; F A 1; GID 1; MUS 2A, 2B, 2C, 2D, 8, 8H; PHOT 8, 8H, 10, 10H; VART 2C; WMN 15.

Letters: ENGL 5, 5H, 7, 7H, 12, 14, 17, 22, 31, 40, 40H, 41, 42A, 42B, 46A, 46C, 48A, 48B, 48C; HUMN 1A, 1B; JAPN 14A, 14B; PHIL 2, 20A, 20B, 20C, 24, 25; SPAN 4, 5, 6, 13A, 13B, 14A, 14B;THTR 1, 2A, 2B, 76.

II. English

ENGL 1A, ENGL 1AH or ESLL 26

III. Natural Sciences (with laboratory)

ANTH 1 with 1L; ASTR 10A w/10L, 10B w/10L, 10BH w/10L; BIOL 9 w/9L, 10, 13, 14, 15, 41: BTEC 10; CHEM 1A, 25, 30A; GEOG 1; HORT 10; PHYS 2A, 4A, 5A.

IV. Social & Behavioral Sciences

ANTH 2A, 3, 5, 8, 12; BUSI 22, 53; CHLD 1, 2; ECON 1A, 1B, 25; HIST 4A, 4B, 4C, 4CH, 8, 9, 9H, 10, 15, 16, 16H, 17A, 17B, 17C, 20; PHED 2; POLI 1. 3, 3H, 9H, 15, 15H; PSYC 1, 4, 10, 14, 21, 22, 25, 30, 33; SOC 1, 10, 11, 15, 19, 20, 21, 23, 30, 40; SPED 62; WMN 5, 21

V. Communication & Analytical Thinking

COMM 1AH, 1BH, 2, 3, 54, 55; ENGL 1B, 1BH; MATH 1A, 1B, 1C, 10, 11, (~~17~~) 57, 22, 44, 48A, 48B, 48C; PHIL 1, 7, 50

VI. United States Cultures & Communities

CHLD 11; COMM 10, 12; ENGL 7, 7H, 12, 40, 40H; F A 2; HIST 10; PSYC 22; SOC 8; WMN 5

VII. Lifelong Understanding

Students must successfully complete a total of four units or more in Lifelong Understanding from two different academic departments. For the purpose of this area, ALAP, DANC and PHED will be considered one academic department and COIN and CIS will be considered one academic department.

ALAP 52, 52X, 52Y, 60, 60X, 61, 61X, 62, 62X, 63, 63X, 64, 64X, 66, 66X, 67, 67X, 68X, 70, 70X, 71, 71X, 80, 80X; BIOL 12; CNSL 72; DANC 1A, 1B, 2, 3A, 3B, 4, 5, 6, 7; LIBR 71; PHED 4, 5, 10A, 10B, 10C, 11A, 11B, 13A, 17A, 17B, 19A, 19B, 20A, 20B, 20C, 21A, 21B, 21C, 21D, 22, 22A, 22B, 22C, 23A, 23B, 23C, 24, 24A, 24B, 25A, 26, 26A, 27, 27A, 28, 29, 30, 34A, 34B, 34C, 34D, 34E, 34F, 34G, 34H, 34J, 35A, 35B, 35C, 35D, 35E, 35F, 35G, 36, 37, 38A, 38B, 39, 40, 41, 41A, 42, 45, 45X, 46, 46A, 47B, 47C, 49A, 49B, 50C, 52, 53; SPED 72.

Minimum proficiency: ENGL 1A, ENGL 1AH or ESLL 26 and MATH (~~17~~) 57 or 105 or 108* completed with a letter grade of "C" or better.

***Intermediate Algebra or equivalent means MATH 105, or mathematics placement test score indicating eligibility for a mathematics course beyond the level of MATH 105, or completion of a higher-level course with a grade of "C" or better, or completion of a bachelor degree or higher from an accredited U.S. college or university.

FOOTHILL COLLEGE
College Curriculum Committee
New Course Proposal

*This form should be completed by the faculty author as preparation to writing a new course. Your division CC rep can assist you in completing it appropriately, and will forward it to the Office of Instruction for inclusion as an announcement at the next available CCC meeting. The purpose of this form is **interdisciplinary communication**. The responsibility to rigorously review and approve new courses remains with the divisional curriculum committees.*

Date Proposal Given to Division CCC Rep:

Proposed Number:
Proposed Title:

Proposed Catalog Description:

Proposed Discipline:

Comments & Other Relevant Information for Discussion:

Proposed Need/Justification Statement:

To which Degree(s) or Certificate(s) would this course potentially be added?

Instruction Office:
Date presented at CCC:
Division: Department:
Number assigned:
Faculty Author:
Date number assigned/notification:

Academic Senate
for California Community Colleges
LEADERSHIP. EMPOWERMENT. VOICE.

February 13, 2012

SUBJECT: Disciplines List Revisions

Dear Colleagues:

It is time to once again begin the formal review of the Disciplines List, which establishes the minimum qualifications for the faculty of California Community Colleges. This review occurs in a two-year cycle. We recently completed such a review, culminating with proposals being voted on at the Spring 2011 Plenary Session and then adopted by the Board of Governors at their November 2011 meeting. This letter is to inform you that we will begin accepting revisions to the Disciplines List this month and to provide you with resource materials that will be useful in submitting changes.

- Enclosure 1—Discipline List Proposal Process: This document provides you with a guide to the discipline review process.
- Enclosure 2—Discipline List Review Timeline: This timeline provides information about key deadlines. Please pay attention to the hearing dates, as each proposal must be heard in at least one hearing. **Please note that the final day to accept proposals is September 30, 2012.**
- Enclosure 3—Revisions to the Discipline List Form: This form is used to submit revisions.
- Enclosure 4 –FAQs on Minimum Qualifications: This FAQs document clarifies some common misunderstandings about minimum qualifications.

Please send this packet of materials to division/department chairs, curriculum committee members, your senators, vice president of instruction, and anyone else that might benefit from this information. All information contained in this packet will also be available on our website at http://www.asccc.org/disciplines-list.

For your reference a copy of the latest Disciplines List, which contains the changes approved by the Board of Governors at their November meeting, is available from our website at: http://www.asccc.org/sites/default/files/Minimum_Qualifications_Handbook_for_2012-2014_(MB2)_020212.pdf.

If you have any questions, please contact Jon Drinnon, Standards and Practices Committee Chair, at jdrinnon@peralta.edu. Please indicate Disciplines List on the subject line of the email.

555 Capitol Mall • Suite 525 • Sacramento • California • 95814
(916) 445-4753 • Fax (916) 323-9867
info@asccc.org • www.asccc.org

DISCIPLINE LIST PROPOSAL PROCESS

How Changes Are Proposed?

There are two avenues for proposing changes: 1) through a local or district academic senate or 2) through a recognized organization*. Although the process for new proposals remains the same, a procedure for resubmissions has been added. For more detailed information about the process, we highly suggest you review the document "Disciplines List Review Process", which can be accessed on our website at: http://asccc.org/sites/default/files/Minimum_Qualifications_2010.pdf.

Each proposed change should be accompanied by a rationale and must have as its basis at least one of the following criteria:

1. changes within the profession or discipline
2. clarification or elimination of confusion and ambiguity
3. inclusion of new degrees
4. continual use of the equivalency process to hire under a specific discipline
5. assurance of the maximum degree of flexibility for the discipline while maintaining discipline integrity
6. other reason, as fully detailed and justified in the proposal

It is the responsibility of the initiator to include pertinent information concerning the proposed change. Failure to include a coherent rationale for the proposed change is grounds for rejection of the proposal.

New proposed changes may be submitted:

1. **Through the local/district senate**
   a. Any faculty member may initiate a proposal to change the Disciplines List.
   b. Local academic senates should engage in discussion regarding the proposals among its faculty.
   c. Local academic senates must approve any/all recommendations before forwarding them to the Academic Senate Office. This local senate president must sign the Discipline List Revision Form.
2. **Through a recognized discipline or professional organization**
   a. Any member of the organization may initiate a proposal to change the Disciplines List.
   b. The organization should hold hearings or engage in discussion regarding the proposals among its members.
   c. The governing body of the organization must approve any/all recommendations before forwarding them to the Academic Senate Office. The president of the organization must sign the Discipline List Revision Form.

   *Recognized organization: an organization that is registered at the Chancellor's Office as representing a specific discipline, or a regional, state, national, or international organization with a formally adopted constitution or by-laws.

Previously proposed changes that were not adopted at a plenary session, may be resubmitted:

Only if

1. a new justification and rationale are provided, *AND*
2. a resolution is passed at an Area meeting (prior to the second hearing in November 2012) to include the proposed change in the review and approval process, *OR*
3. through the regular resolution process at 2012 Fall Plenary Session, where the mover must seek approval at the Session to include the proposed change in the review and approval process.

DISCIPLINE REVIEW PROCESS
2012 - 2014 Timeline

Month/Year	Process
February 2012	**Distribution of Process to the field**. The Senate Office sends requests for proposals to local senate presidents, college presidents, chief instructional officers, curriculum chairs, personnel officers, and discipline professional organizations informing them of the opportunity to propose a change to the Disciplines List. The material contains information on the process and a timeline for submission. • **Rostrum** announcement and description of process • **Website** posting of announcement and description of process
March 2012	**Submission of Proposals.** Proposals may be submitted to the Senate Office: • ***Through Local Senates:*** Any faculty member may initiate a proposal to change the Disciplines List. The local senate must approve and forward any such proposals, with the signature of the local senate president to acknowledge local senate support, to the Senate Office. • ***Through a recognized discipline or professional organization***: Any member of an organization that represents a discipline or profession may initiate a proposal to change the Disciplines List. The members of the organization should discuss proposals. The governing body of the organization must approve the recommendation. The organization's president must sign the Disciplines List Change Proposal Form. **Discipline process is reinforced through:** • Discussions at Area Meetings • Breakout Discussion at Spring Plenary • Update in *Rostrum* on the process **Initial review BEGINS when proposals are received and continues <u>until September 30, 2012.</u>** The Standards & Practices Committee performs an initial review of proposals using the following criteria: • The information on the proposal is complete and accurate. • The proposal does not exceed the scope of the Disciplines List review process. • This proposal has not previously been considered and rejected by the plenary session or, if it has, it is supported by a new rationale. • The proposal is not being submitted to deal with a district-specific problem that does not apply broadly. **Revising Proposals with Problems**. Standards &Practices Committee will contact the maker of the proposal to help resolve the problem. • Changes to proposals **are** allowed at this stage of the process. • If problems are resolved to the satisfaction of the Committee, the proposal will be considered. • The maker may withdraw a proposal.
April 2012	• Process reinforced at Area Meetings.

Month/Year	Process
	• Prepare *Rostrum* Article on proposals and process. • The Standards & Practices Committee will prepare summary document to be included in the mailings for the Area Meetings. Summary will **not** include recommendations from the Executive Committee but instead provide information to the field on the proposals received and to be discussed at the Spring Plenary Session.
April 19, 2012	• **Spring Plenary Session—<u>First Hearing</u> on process and any proposals received. All testimony is collected.** *[Note: At a minimum proposals must be vetted at one of the statewide hearings]*
September/ October 2012	• **Second and final call for proposals this cycle**. • Senates and organizations can submit new proposals or revise proposals already submitted that were found to have problems. • The summary document will be distributed and include all proposals (new and updated). Any testimony information will be included in the summary. • Discussed at Area Meetings. • Any interested party may submit written comments to the Committee, via the Senate Office. • Standards & Practices Committee will update summary document with any new proposals, which will be included in the mailing for the Area Meetings. The summary will **not** include recommendations from the Executive Committee but instead provide information to the field on the proposals received and to be discussed at the 2012 Fall Plenary Session.
September 30, 2012	• **No new proposals will be accepted beyond September 30th because there's no other opportunity for publication and hearing beyond the November 11th date. All proposals submitted beyond the September date will be held over to the next Discipline Review cycle.**
November 8, 2012	• **Fall Plenary Session—<u>Second Hearing</u> on process and any proposals received. All testimony is collected.** *[Note: At a minimum proposals must be vetted at one of the statewide hearings]* • Prepare *Rostrum* Article on proposals and process
January /February 2013	**Submission to Executive Committee.** • The Standards & Practices Committee presents the proposals and associated testimony to the Senate Executive Committee. • The Committee also presents its recommendations (to advance to Spring Plenary or to reject) along with the rationale for those recommendations and any other comments that may assist the Executive Committee in its deliberations. • The Senate Executive Committee considers each proposal and either forwards the proposal for consideration by the body at plenary session or rejects it. • If the Executive Committee rejects a proposal, anyone may still bring the proposal forward to plenary session by introducing a resolution "to reconsider" the proposed change at any of the Area meetings or at the plenary session. • If the Executive Committee rejects a proposal and the author does not bring it forward to the plenary session for reconsideration, the proposal may be reintroduced at a later date.

Month/Year	Process
March 2013	• Summary document with Executive Committee positions will be included in the mailings for the Area meetings. • Discussion at Area Meeting • *Rostrum* Article (summary of additional proposals)
April 2013	• Spring Plenary Session—Third Hearing on process and any proposals received. All testimony is collected. ***[Note: At a minimum proposals must be vetted at one of the statewide hearings]*** • Delegates vote on Discipline Changes • No changes may be made to the proposal, even by amendment during plenary session, and proposals may not be withdrawn. [This is because no changes can be made when the field has not had an opportunity to comment on them.]
May/June 2013	Consultation with CIOs, CEOs, and COFO (bargaining units). Informal consultation with personnel officers. This is done through an item on the Consultation Council agenda. Council members comment on the process, not the recommendations.
July 2013	Submit proposal to BOG (First reading): Each proposal adopted by the Senate is forwarded to the Board of Governors as a recommendation. The Board of Governors considers the recommendations of the Senate and formally acts on them. To date, the Board of Governors has accepted all recommendations of the Senate.
September 2013	BOG (Second Reading)
February 2014	Restart process for new cycle.

REVISIONS TO DISCIPLINES LIST
PLEASE TYPE
(Note: Only typed forms will be accepted.)

DATE SUBMITTED: _____

DISCIPLINES LIST TITLE: _____

This proposal is for a
- ☐ New discipline
- ☐ Revision to existing discipline

Reason for the proposal
- ☐ Create a new discipline
- ☐ Update language in existing discipline to reflect new terminology
- ☐ Make minimum qualifications in existing discipline more restrictive
- ☐ Make minimum qualifications in existing discipline less restrictive

PROPOSAL LANGUAGE: (If this is an existing minimum qualification, please include the original language and change using strikeouts and *italics*).

RATIONALE FOR THE PROPOSAL:
Please write a brief explanation of the proposal. Consider including the UC or CSU campus(es) where the degree is offered; changes within the profession or discipline; desire to clarify or eliminate confusion or ambiguity; continuous use of the equivalency process for hiring in this area; ensuring maximum degree of flexibility for the discipline; or other reasons. See the ASCCC paper Disciplines List Review Process (2004) for more information. Attachments are acceptable.

Contact person (author of proposal) _____

Phone number (please provide at least two numbers) _____

Signature of College Academic Senate President _____

College _____

Email _____ Date approved by College Academic Senate _____

OR

Organization _____

President _____

Date Approved by Organization _____ Phone for President _____

RETURN FORM TO: The Academic Senate for California Community Colleges
555 Capitol Mall, Suite 525, Sacramento, CA 95814
Fax 916.323.9867 Email: disciplineslist@asccc.org

REVISIONS TO DISCIPLINES LIST
PLEASE TYPE
(Note: Only typed forms will be accepted.)

DATE SUBMITTED: _____

DISCIPLINES LIST TITLE:_____

This proposal is for a
- ☐ New discipline
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Contact person (author of proposal) _____

Phone number (please provide at least two numbers) _____

Signature of College Academic Senate President _____

College _____

Email _____ Date approved by College Academic Senate _____

OR

Organization _____

President _____ Signature_____

Date Approved by Organization _____ Phone for President _____

RETURN FORM TO: The Academic Senate for California Community Colleges
555 Capitol Mall, Suite 525, Sacramento, CA 95814
Fax 916.323.9867 Email: disciplineslist@asccc.org

FAQs on Minimum Qualifications (MQs)

The following list of Frequently Asked Questions (FAQs) has been compiled to assist individuals in better understanding and interpreting the rules and regulations governing the minimum qualifications (MQs) for faculty and administrators in the California Community College system. The FAQs were collaboratively developed with members of the Standards and Practices Committee of the State Academic Senate and staff from the Chancellor's Office of the California Community Colleges.

Q#1: Who has the responsibility for establishing and maintaining the Disciplines List and enforcing the regulations relating to the MQs?

A. The Academic Senate for California Community Colleges, in conjunction with the Chancellor's Office, shares that responsibility. The Academic Senate is responsible for reviewing and revising the Disciplines List. A list of Academic Senate papers on minimum qualifications and the Disciplines List is included at the end of this document. An overview of the disciplines list process can be found at:

http://www.asccc.org/Archives/DisciplineList/DisciplinesList.htm

Staff from the Chancellor's Office of the California Community Colleges has the responsibility of ensuring that colleges comply with the regulations governing MQs. The regulations can be found by accessing the "Minimum Qualifications for Faculty and Administration in California Community Colleges" document posted at:

http://www.cccco.edu/Portals/4/minimum_quals_jan2008.doc

Q#2: Can a California Community College Credential be used to apply for a faculty position at a California Community College?

A: Yes. The issuance of Community College credentials was discontinued in 1990, but lifetime credentials issued before 1990 are "grandfathered" into the MQ process and accepted as meeting the MQs for faculty positions.
As a result of Assembly Bill 1725 (1988), MQs are now determined on academic preparation (for both master's and non-master's disciplines) and relevant work experience (for non-master's disciplines) when qualifying individuals for faculty positions---according to the Disciplines List and local equivalency processes.

Q#3: Can a Community College Teaching Certificate issued by a four-year institution (several CSU campuses offer such credentials) be used to apply for a faculty position at a California Community College?

No. The Community College Teaching Certificate, while commendable, has no bearing on meeting the MQs for faculty in the community colleges.

Q#4: What if someone has a single-subject discipline credential, has taught high school in that discipline for 14 years, and recently received a Master's in Educational Administration. Would he/she qualify to teach part-time in the discipline?

A: No. The single-subject and multiple-subject credentials are issued by the California Commission on Teacher Credentialing and are only valid within the K-12 public education system. To be eligible to teach (full- or part-time) that discipline at any of the California community colleges, a person needs to meet the requirements for the discipline as noted in the Disciplines List. The credential, high school teaching experience and the master's degree (not in a discipline subject) could be used as factors in determining equivalency to the requirements of a discipline listed in the Disciplines List. Equivalent qualifications are

determined by faculty representing their academic senate at the local level and approved by the local governing board

Q#5: Are the MQs for part-time faculty different than those for full-time faculty?

A. No. The MQs for all faculty members are the same, whether they are full-time or part-time. Note also that MQs are established for a discipline and not a single course. A part-time faculty member, when hired by the college, is hired to teach in the discipline under which a particular course has been assigned. Therefore, it is important that the college ensures the candidate is meeting the MQs in the discipline when hiring both full and part-time faculty.

Q#6: What happens when an academic degree held by an applicant for a faculty position is not listed in the Disciplines List?

A: One of two processes can occur---determination of an equivalency to an existing discipline, or proposal of a revision to the Disciplines list, either by proposing a new discipline or adding a degree to an existing discipline.

For any degree that is not currently covered in the Disciplines List, follow the guidelines for establishing an equivalency to a discipline as provided in Title 5, Section 53410, Minimum Qualifications for Instructors of Credit Courses, Counselors, and Librarians, which reads as follows:

> The minimum qualifications for service as a community college faculty member teaching any credit course, or as a counselor or librarian, shall be satisfied by meeting any one of the following requirements:
> (a) Possession of a master's degree, or equivalent foreign degree, in the discipline of the faculty member's assignment.
> (b) Possession of a master's degree, or equivalent foreign degree, in a discipline reasonably related to the faculty member's assignment and possession of a bachelor's degree, or equivalent foreign degree, in the discipline of the faculty member's assignment.

Title 5 states that, in addition to a master's degree in the specific discipline, a master's degree in a "reasonably related" discipline can satisfy the MQs requirement. Since the Disciplines List does not currently include the degree of the applicant, the district is able to determine the equivalent academic degree that may also fulfill the MQ to the discipline listed in the Disciplines List.

Revisions to the Disciplines List (addition of a new discipline or addition/deletion of an academic degree to an existing discipline) are based upon the recommendation of the Academic Senate to the Board of Governors. Consult the guidelines as listed in the Disciplines List Process of the Academic Senate at:

http://www.asccc.org/Archives/DisciplineList/DisciplinesList.htm

Q7: What are good practices in determining an equivalency to the MQs for a discipline?

A: To maintain the academic integrity of the community colleges and their faculty, equivalency to those minimum qualifications for hire must be granted with careful consideration. The Academic Senate has the following recommendations (from Equivalence to the Minimum Qualifications, 2006):

- Equivalency must be at least equivalent to the minimum qualifications for a discipline.
- Equivalency must be determined primarily by discipline faculty.

- Equivalency processes for part-time faculty and "emergency hire" should be no different from equivalency for full-time faculty.
- Local senates must ensure that their district and college policies and processes do not allow for single-course equivalencies.
- Academic senates should assure consistency of the equivalency process.
- Equivalency decisions should be based on direct evidence of claims (e.g., transcripts, publications, and work products).
- Claims of equivalence must include how both general education and specialization are met.
- Human resources offices should NOT screen for equivalency.
- Local senates must never allow equivalency to be delegated to administration or classified staff.
- Equivalency policies at each district and college should be reviewed every few years.
- Criteria for the acceptance of eminence as a means to establish equivalency must be clearly defined in hiring policy.
- Once the local equivalency process has reached a recommendation regarding an individual applicant, Education Code §87359(a) requires that the governing board include action on the equivalency as part of its subsequent hiring action.

Q#8: Is an equivalency granted by one district transferable to another district?

A. No. Each district is allowed to establish its own equivalency minimum qualifications for each discipline taught in its jurisdiction. Section 53430 of Title 5 states that:

> "A district may hire a person who possesses qualifications different from, but equivalent to, those listed on the disciplines list, according to criteria and procedures agreed upon by the governing board and the academic senate."

Q#9: Does an equivalency granted by one college in a multi-college district apply to all the colleges in that district?

Yes. An equivalency established by one college in a multi-college district is applicable to all colleges in that district. In order to maintain consistency, colleges in multi-college districts are encouraged to work together on a common equivalency process.

Q#10: What are the parameters by which a district would use eminence when determining whether an applicant for a faculty position meets the MQs for the listed position?

A: The current MQs regulations and disciplines list are silent in defining or referencing the term "eminence." The State Academic Senate's Standards and Practices Committee is currently in the process of developing resources to assist local colleges in making an eminence determination. Access the current paper on minimum qualifications and equivalencies at

http://www.asccc.org/Publications/Papers/Equivalence_2006.html

Q#11: Isn't the course designation under the TOP code the same as the disciplines in the Disciplines List?

No. Colleges need to be cautious that the course designation under the Taxonomy of Programs (TOP) is not confused with the Disciplines List developed in establishing MQs for faculty to meet when being hired for a position. TOP is a system of numerical codes used at the state level to collect and report information on programs and courses in different colleges throughout the state that have similar outcomes. It is used for purposes other than identifying disciplines for the purposes of hiring and assignment of faculty.

Q#12: How do I go about having a discipline included on the disciplines list?

A: The Disciplines List is updated every two years through a collaborative process involving the State Academic Senate and the Chancellor's Office of the California Community Colleges. An overview of the process can be found on the following web page:

http://www.asccc.org/Archives/DisciplineList/DisciplinesList.htm

Q#13: Are the MQs for distance education faculty different those for a traditional classroom instructor?

A. No. The MQs for all faculty members, regardless of the course delivery mode, are the same. MQs are established for a discipline and not the specific mode of delivery. A faculty member is hired to teach courses in a discipline, regardless of the technological modality by which the course content is delivered. Colleges may establish desirable qualifications for faculty to have in order to teach courses as distance education; however, the MQs remain unchanged based solely on the mode of delivery.

Q#14: Are the MQs for instructors of noncredit courses the same as for instructors of credit instruction.

Not necessarily. The MQs for instructors of noncredit courses are listed in section 53412 of Title 5. Many of the MQs for noncredit courses are the same as the MQs for credit instruction, but there are important exceptions that are noted in this section of Title 5.

Q#16: What is the difference between an FSA (Faculty Service Area) and the Disciplines List (MQs)?

A. The Disciplines List and Faculty Service Areas serve two completely distinct purposes---one for hiring and one for layoffs. In order to be hired as a faculty, one must meet the minimum qualifications (MQs) for one of the disciplines listed in the Disciplines List. The MQs in the Disciplines List are established through the Education Code and Title 5 and apply to all faculty throughout the state. Faculty Service Areas are established by each district and serve as the basis for making decisions in the event of a layoff or reduction in force (RIF). Some districts construct their FSAs by designating each discipline listed in the Disciplines List as an FSA. Other districts combine several disciplines into an FSA. And other districts combine all disciplines into one single FSA. Upon hire, a faculty member is placed in the FSA that includes the discipline for their position. If your FSA includes more than one discipline, it does not mean that you are qualified for service in each of the disciplines listed in that FSA, but only for those in which you meet the MQs.

Q#17: Is it possible to teach at a community college as a faculty intern?

A. Yes. The governing board of any community college district may establish a faculty internship program. A full description of the requirements and MQs that apply in this type of a situation can be found in Sections 53500 through 53502 of Title 5, California Code of Regulations.

These sections of the regulation can be found by accessing the Minimum Qualifications for Faculty and Administration in the California Community Colleges document posted at:

http://www.cccco.edu/Portals/4/minimum_quals_jan2008.doc

Q#18: Does the Coaching discipline listed under the section "Disciplines in Which a Master's Degree is not Generally Expected or Available" permit an individual who is hired as a coach, and does not possess a master's degree, to teach physical education classes?

A: No. The discipline of coaching permits an individual to coach in a sport, but not to teach the activity classes in a sport. For example, an individual with the coaching MQ could coach the swim team, but would not have the MQs to teach swimming classes---those courses would most likely have been assigned to the discipline of Physical Education (which requires a master's degree) by the college curriculum committee.

Q#19: If someone earned a professional degree, such as J.D., M.D., L.L.B., D.V.M, D.O., or other recognized degree, what courses can that individual teach at the community college?

A: The MQ to teach in the Law discipline within the community colleges is the possession of a J.D. or L.L.B. So, an individual with a J.D. or L.L.B. could teach any course that has been assigned the discipline of Law by the curriculum committee. Additionally, the MQ guidelines note that courses in aspects of law for applications to a particular discipline may be classified, for minimum qualifications purposes, in the disciple of the application - i.e., Business Law.

A person with an M.D. or D.V.M or D.O. would not be recognized as meeting the MQs for the discipline of Biology simply through his or her professional degree coursework. The college equivalency committee would need to examine the person's pre-professional degree coursework to see if the total amount of coursework was equivalent to the MQs for the Biology discipline.

Q#20: Is it true that in order to teach a class listed under two disciplines that the instructor only has to be qualified in ONE of the disciplines to teach it, not both. For example, if HIST 177 and ECON 177 are cross-listed, then the instructor needs a master's in History OR Economics?

A: Yes. Some courses may be appropriately assigned to more than one discipline. For example, a course entitled "Economic History of the United States" may be appropriately placed in both the *economics* and *history* disciplines. Such a placement means that a faculty member with minimum qualifications in *either* discipline would be qualified to teach this course, provided that he or she also possesses any additional qualifications established by the governing board in conjunction with its academic senate.

Q#21: What is the Interdisciplinary Studies discipline? Does that mean that anyone can teach a course using that discipline?

A: No. Some courses may not clearly fall within a single discipline, but must combine the academic preparation from two or more disciplines to such a degree that they need to be taught by someone with some preparation in the constituent disciplines. These courses are designated as *interdisciplinary*. The entry for Interdisciplinary Studies is as follows:

Master's in the Interdisciplinary area **OR**
Master's in one of the disciplines included in the interdisciplinary area **and** upper division or graduate course work in at least one other constituent discipline[s].

Therefore the *interdisciplinary* designation requires more specialized minimum qualifications than courses cross-listed under two or more disciplines. Someone who has a master's degree in one of its component disciplines and upper division or graduate course work in at least one of the

other constituent disciplines is also eligible to teach this course (exactly how much coursework in a second discipline is not specified in the Disciplines List). Agreement on qualifications to teach any such course should be made by the college curriculum committee and based on the course outline of record.

Q#22: Can someone with a degree from a foreign country teach at a community college?

A: Possibly. Within the United States, no government agency monitors the establishment of foreign credential evaluation services. Prior to becoming employed as an instructor with any California community college, the college would need to have an evaluation conducted of the education and degree completed at the foreign college/university to inform the equivalency process. The community college would generally refer transcripts from the foreign college/university to an organization that evaluates foreign credentials.

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You can access the full document specifying the California Community Colleges' Minimum Qualifications for Faculty and Administrators (commonly known as the **Disciplines List**) by going to the following URL:
http://www.cccco.edu/Portals/4/minimum_quals_jan2008.doc

This FAQ will be reviewed on a regular basis by the Academic Senate and the Chancellor's Office.

Academic Senate documents on Minimum Qualifications and the Disciplines List process:

Disciplines List Review Process. (adopted Fall 2004).
http://www.asccc.org/Publications/Papers/DisciplinesListReview2004.html

Equivalence to the Minimum Qualifications. (adopted Fall 2006).
http://www.asccc.org/Publications/Papers/Equivalence_2006.html

Qualifications For Faculty Service In The California Community Colleges: Minimum Qualifications, Placement Of Courses Within Disciplines, And Faculty Service Areas. (adopted Spring 2004).
http://www.asccc.org/Publications/Papers/QualificationsFacultyService.htm

Proposed Education Code Language to Implement Student Success Task Force (SSTF)
February 1, 2012
Initial Draft

Proposed SSTF Education Code changes to Matriculation:

78210. This article shall be known and may be cited as the Seymour-Campbell ~~Matriculation Act of 1986~~ *Student Success Act of 2012*.

78211. It is the intent of the Legislature to do all of the following:

(a) Ensure equal education opportunity for all Californians.

(b) Provide students with the resources and support to establish informed educational goals.

(~~*b*~~*c)* Ensure that students receive the educational services necessary to successfully complete their educational goal *and program of study*. ~~optimize their opportunities for success.~~

(d) Recognize that student success is the responsibility of the institution and student, supported by well coordinated and evidenced-based student and instructional services to foster academic success.

~~(c) Provide students with the information to establish realistic educational goals, and ensure that the matriculation process does not exclude students from receiving appropriate educational services at community colleges.~~

78211.5. (a) *The purpose of the Student Success Act is to increase California community college student access and success by providing effective core matriculation services of orientation, assessment and placement, education planning, and academic interventions. The focus of the Student Success Act is on the entering students' transition into college to provide a foundation for student achievement and successful completion of students' educational goals, with a priority towards serving students who enroll to earn degrees, career technical certificates, or transfer. The Student Success Act of 2012 targets state resources on core matriculation services that research has shown to be critical to increasing the ability of students to reach their educational goals. By focusing funding in these core areas and leveraging the use of technology to more efficiently and effectively serve a greater number of students, the goal of the Student Success Act is to provide students with a solid foundation and opportunity for success in the California Community Colleges.*

~~*(b)*The Board of Governors of the California Community Colleges shall initially provide for full implementation of the *Student Success Act's* matriculation services specified in Section 78212 in as many community colleges as the funds appropriated for this purpose allow.~~

(b) ~~Because of the need to develop and evaluate data on a standard statewide basis concerning the implementation and effectiveness of the matriculation services described in this article,~~ Any college or district receiving funding under this article shall agree to carry out its provisions as specified, but shall be bound to that agreement only for the period during which funding is received pursuant to this article. The obligations of the college or district under the agreement shall include, but not be limited to, the expenditure of funds received

pursuant to this article for only those ~~matriculation~~ services approved by the board of governors and the contribution toward the purposes of this article of matching funds as the board of governors may require pursuant to Section 78216.

78212. (a) For purposes of this article, "matriculation" means a process that brings a college and a student ~~who enrolls for credit~~ into an agreement for the purpose of ~~realizing~~ *achieving* the student's educational ~~objectives~~ *goals and completing the student's program of study*. The agreement involves the responsibilities of both parties to attain those objectives through the college's established programs, policies, *and requirements identified by the board of governors pursuant to Section 78215.*

(1) The student's responsibilities under the agreement include*, but are not limited to,* the ~~expression~~ *identification* of *an* ~~at least a broad educational intent~~ *educational goal* upon enrollment, the declaration of a specific ~~educational objective~~ *program of study* within a reasonable period after enrollment *as defined by the board of governors*, diligence in class attendance and completion of assigned coursework, and the completion of courses and maintenance of *academic* progress toward an educational goal *and program of study identified in the student's education plan* according to standards established by the college, the district, and the state.

(2) *The institution's responsibility under the agreement includes the provision of services for students to provide a strong foundation to support their academic success and ability to achieve their educational goals. The services funded through the Student Success Act*, *also known as the Student Success and Support Program,* ~~Matriculation services to be made available by the colleges~~ shall include, but are not limited to, all of the following:

~~(1) Processing of the application for admission.~~

(~~2~~A) Orientation ~~and preorientation~~ services designed to provide to students, on a timely basis, information concerning campus procedures, academic expectations, financial assistance, and any other matters the college or district finds appropriate.

(~~3~~B) Assessment and ~~counseling~~ *education planning services* upon enrollment, which shall include, but not be limited to, all of the following:

(~~1~~i) Administration of assessment instruments to determine student competency in computational and language skills.

(~~2~~ii) Assistance to students in the identification of aptitudes, interests and educational objectives, including, but not limited to, associate ~~of arts~~ degrees, transfer for baccalaureate degrees, and *career technical* ~~vocational~~ certificates and licenses.

(~~3~~iii) Evaluation of *a* student's ~~study and learning~~ *college readiness* skills *and knowledge.*

(4iv) Development of an education plan leading to a program of study and guidance on course selection.

(~~D~~C) Referral to specialized support services as needed, including, but not limited to, federal, state, and local financial assistance; health services; ~~campus employment placement~~ *career* services; *veteran support services,*

foster youth services, extended opportunity programs and services provided pursuant to Article 8 (commencing with Section 69640) of Chapter 2 of Part 42; campus child care services provided pursuant to Article 4 (commencing with Section 8225) of Chapter 2 of Part 6; programs that teach English as a second language; and disabled student services provided pursuant to Chapter 14 (commencing with Section 67300) of Part 40.

~~(E) Advisement concerning course selection.~~

(D~~) Post-~~Evaluation of each student's progress and referral to appropriate interventions, and required advisement or counseling for students who are enrolled in *basic skills* ~~remedial~~ courses, who have not declared an educational ~~objective~~ *goal* as required, or who are on academic probation, as defined by standards adopted by the Board of Governors of the California Community Colleges and community college districts.

(b) Student Success and Support Program funding shall be targeted to fully implement orientation, assessment and education planning services needed to assist a student in making an informed decision about his or her educational goal and program of study and in the development of an education plan.

~~**78212.5.** Each community college district may develop and maintain all of the following within each community college in the district:~~

~~(a) Career resource and placement centers having the purposes of maintaining information on vocational, technological and educational opportunities, and facilitating career employment.~~

~~(b) Programs to instruct appropriate staff and faculty members in the performance of matriculation services.~~

~~(c) Orientation programs designed to explain to new students academic requirements and other regulations of the community college, and the available student support services.~~

~~(d) A publicity program designed to inform the community served by the community college that the purposes of the mandatory matriculation process are intended to facilitate, rather than restrict, student access to community college instruction, and to enhance each student's awareness of his or her abilities, skills, and potential.~~

~~(e) A publicity program designed to inform high schools in the community served by the community college, through orientation programs and other means, of student skill levels, and of available student support services.~~

78213. (a) No district or college may use any assessment instrument for the purposes of this article without the authorization of the board of governors. The board of governors may adopt a list of authorized assessment instruments pursuant to the policies and procedures developed pursuant to this section and the intent of this article. The board of governors may waive this requirement as to any assessment instrument pending evaluation.

(b) The board of governors shall review all assessment instruments to ensure that they meet all of the following requirements:

(1) Assessment instruments shall be sensitive to cultural and language differences between students.

(2) Assessment instruments shall be used as an advisory tool to assist students in the selection of an educational program.

(3) Assessment instruments shall not be used to exclude students from admission to community colleges.

(c) The board of governors shall establish an advisory committee to review and make recommendations concerning all assessment instruments used by districts and colleges pursuant to this article.

(d) At such time when the board of governors adopts a system of common assessment, districts and colleges may use supplemental assessments or other measures for placement pursuant to 78213(a).

78214. (a) All participating districts shall, with the assistance of the chancellor, establish and maintain institutional research to evaluate the effectiveness of the *Student Success and Support Program* services described by this article and of programs and services designed to ~~remedy~~ *facilitate* students' ~~skills deficiencies~~ *completion of their educational goals and programs of study*.

(b) The ~~data base~~ *accountability metrics* for this research shall include, but not be limited to:

(1) Prior educational experience, including transcripts when appropriate, as determined by the chancellor.

(2) Educational ~~objectives~~ *goals and programs of study.*

(3) Criteria for exemption from *orientation,* assessment or required counseling or advisement, if applicable.

(4) Need for financial assistance.

(5) *Disaggregated data by* ~~*Ee*~~thnicity, *gender* ~~sex~~, and age.

(6) Academic performance, *such as the completion of specified unit thresholds, success in basic skills courses, grade point average, course completion outcomes, transfer readiness, and degree and certificate completion.*

(7) Any additional information that the chancellor finds appropriate.

(c) The evaluation provided for by this section shall include an assessment of the effectiveness of the programs and services in attaining at least the following objectives:

(1) Helping students to define their educational goals *and declare a program of study*.

(2) Assisting institutions in the assessment of students' educational needs *and valid course placement*.

(3) Helping support students' successful course completion and attainment of a degree, certificate or transfer, through the provision of effective orientation services and academic interventions.

~~(3) Matching institutional resources with students' educational needs.~~

~~(4) Providing students with specialized support services as referred to in subdivision (b) of Section 78212.~~

78215. The Board of Governors of the California Community Colleges shall establish *policies* ~~criteria~~ *and processes* for:
(a) requiring all non-exempt students to complete orientation, assessment, and develop education plans; (b) exempting students from participation in orientation, assessment testing, or required ~~counseling or advisement~~

education planning services under this article; *and (c) requiring community college districts to adopt a student appeal process.*

78216. (a) The Legislature recognizes that community college districts are currently funding various components of student matriculation through existing *orientation,* ~~counseling~~ *education planning*, assessment, and other student services, but that adequate student matriculation and implementation of *Student Success and Support Program strategies* cannot be realized without supplemental funding support.

(b) The board of governors shall develop a formula for allocating *Student Success and Support Program* funding *to implement the services identified in 78212* ~~student matriculation services~~ at community colleges. The formula shall include the requirement that the districts or colleges contribute matching funds in an amount to be established by the board of governors in each case, and shall reflect, but not be limited to, *other* ~~all of the following~~ considerations:

(1) The number of students to receive services at each college.

~~(2) The levels of support for matriculation services provided at each college prior to July 1, 1985, and the need for funding assistance in the implementation of the program set forth in this article. (3) The relative needs for matriculation services, based on special student populations such as low-income students, students with language differences, students with physical and learning disabilities, and students in need of remedial instruction.~~

~~(3) The relative needs for matriculation services, based on special student populations such as low-income students, students with language differences, students with physical and learning disabilities, and students in need of remedial instruction.~~

(~~4~~2) The requirement that funds for *Student Success and Support Program* ~~*matriculation*~~ services be expended only for services approved by the board of governors.

(~~5~~3) The requirement that any district or college receiving funding pursuant to this section agree to implement this article *and implement the board of governors system of common assessment and accountability scorecard, pursuant to Section 84754.5 of the Education Code, when established* during the period in which it receives that funding.

~~(6) The need for computer hardware and software to provide approved matriculation services, and for institutional research personnel for ongoing evaluation.~~

(4) Insofar as a district is able to fully implement in-person or technology strategies for orientation, assessment, and education planning services, the board of governors may identify other non-instructional support services that can be funded through the provisions of this Act.

(c) The board of governors shall require participating colleges to develop a *Student Success and Support Program* plan ~~for student matriculation~~ that reflects all of the following:

(1) A ~~method for providing~~ *description of* the *Student Success and Support Program* services ~~specified~~ *identified* in Section 78212 *to be provided*.

(2) The college budget for the *state-funded Student Success and Support Program services* pursuant to Sections 78212 and 78214.

(3) The development and training of staff and faculty *to implement the Student Success and Support Program* ~~matriculation~~ *services.*

(4) In multicampus districts, the coordination of the college *Student Success and Support Program* ~~matriculation~~ plan with other college plans *within the district*.

(5) ~~Computerized information~~ Technology services and institutional research and evaluation necessary for implementation of this article.

(6) Coordination with college student equity plans to ensure the college has identified strategies to monitor and address equity issues and mitigate any disproportionate impacts on student access and achievement.

(d) The board of governors may allocate up to 5 percent of the total funds appropriated for ~~student matriculation~~ *the Student Success and Support Program* for state administrative operations to carry out the intent of this article, subject to the review of the annual budget process.

78218. In the *2013-2014* fiscal year and each fiscal year thereafter, this article shall be operative only if funds are specifically appropriated for the purposes of this article.

Proposed SSTF Education Code changes to BOG Fee Waiver:

76300. (a) The governing board of each community college district shall charge each student a fee pursuant to this section.

(b) (1) The fee prescribed by this section shall be thirty-six dollars ($36) per unit per semester, effective with the fall term of the 2011-12 academic year.

(2) The board of governors shall proportionately adjust the amount of the fee for term lengths based upon a quarter system, and also shall proportionately adjust the amount of the fee for summer sessions, intersessions, and other short-term courses. In making these adjustments, the board of governors may round the per unit fee and the per term or per session fee to the nearest dollar.

(c) For the purposes of computing apportionments to community college districts pursuant to Section 84750.5, the board of governors shall subtract, from the total revenue owed to each district, 98 percent of the revenues received by districts from charging a fee pursuant to this section.

(d) The board of governors shall reduce apportionments by up to 10 percent to any district that does not collect the fees prescribed by this section.

(e) The fee requirement does not apply to any of the following:

(1) Students enrolled in the noncredit courses designated by Section 84757.

(2) California State University or University of California students enrolled in remedial classes provided by a community college district on a campus of the University of California or a campus of the California State University, for whom the district claims an attendance apportionment pursuant to an agreement between the district and the California State University or the University of California.

(3) Students enrolled in credit contract education courses pursuant to Section 78021, if the entire cost of the course, including administrative costs, is paid by the public or private agency, corporation, or association with which the district is contracting and if these students are not included in the calculation of the full-time equivalent students (FTES) of that district.

(f) The governing board of a community college district may exempt special part-time students admitted pursuant to Section 76001 from the fee requirement.

(g) *The fee requirements of this section shall be waived for any student who:*

(1) identifies a degree, certificate, transfer, or career advancement goal,

(2) meets academic and progress standards, including a maximum unit cap, as defined by the Board of Governors; and

(3) meets one of the following criteria:

(A) At the time of enrollment, is a recipient of benefits under the Temporary Assistance to Needy Families program, the Supplemental Security Income/State Supplementary Program, or a general assistance program;

(B) Demonstrates eligibility according to income standards established by regulations of the board of governors, or;

(C) Demonstrates financial need in accordance with the methodology set forth in federal law or regulation for determining the expected family contribution of students seeking financial aid.

(4) Conditions specified in subsections (1) and (2) shall be phased in over a reasonable period of time as determined by the board of governors

~~The fee requirements of this section shall be waived for any student who, at the time of enrollment, is a recipient of benefits under the Temporary Assistance to Needy Families program, the Supplemental Security Income/State Supplementary Program, or a general assistance program or has demonstrated financial need in accordance with the methodology set forth in federal law or regulation for determining the expected family contribution of students seeking financial aid~~

~~(2) The governing board of a community college district also shall waive the fee requirements of this section for any student who demonstrates eligibility according to income standards established by regulations of the board of governors.~~

(h) The fee requirements of this section shall be waived for any student who, at the time of enrollment, is a dependent, or surviving spouse who has not remarried, of any member of the California National Guard who, in the line of duty and while in the active service of the state, was killed, died of a disability resulting from an event that occurred while in the active service of the state, or is permanently disabled as a result of an event that occurred while in the active service of the state. "Active service of the state," for the purposes of this subdivision, refers to a member of the California National Guard activated pursuant to Section 146 of the Military and Veterans Code.

(i) The fee requirements of this section shall be waived for any student who is the surviving spouse or the child, natural or adopted, of a deceased person who met all of the requirements of Section 68120.

(j) The fee requirements of this section shall be waived for any student in an undergraduate program, including a student who has previously graduated from another undergraduate or graduate program, who is the dependent of any individual killed in the September 11, 2001, terrorist attacks on the World Trade Center and the Pentagon or the crash of United Airlines Flight 93 in southwestern Pennsylvania, if that dependent meets the financial need requirements set forth in Section 69432.7 for the Cal Grant A Program and either of the following applies:

(1) The dependent was a resident of California on September 11, 2001.

(2) The individual killed in the attacks was a resident of California on September 11, 2001.

(k) A determination of whether a person is a resident of California on September 11, 2001, for purposes of subdivision (j) shall be based on the criteria set forth in Chapter 1 (commencing with Section 68000) of Part 41 of Division 5 for determining nonresident and resident tuition.

(l) (1) "Dependent," for purposes of subdivision (j), is a person who, because of his or her relationship to an individual killed as a result of injuries sustained during the terrorist attacks of September 11, 2001, qualifies for compensation under the federal September 11th Victim Compensation Fund of 2001 (Title IV (commencing with Section 401) of Public Law 107-42).

(2) A dependent who is the surviving spouse of an individual killed in the terrorist attacks of September 11, 2001, is entitled to the waivers provided in this section until January 1, 2013.

(3) A dependent who is the surviving child, natural or adopted, of an individual killed in the terrorist attacks of September 11, 2001, is entitled to the waivers under subdivision (j) until that person attains the age of 30 years.

(4) A dependent of an individual killed in the terrorist attacks of September 11, 2001, who is determined to be eligible by the California Victim Compensation and Government Claims Board, is also entitled to the waivers provided in this section until January 1, 2013.

(m) (1) It is the intent of the Legislature that sufficient funds be provided to support the provision of a fee waiver for every student who demonstrates eligibility pursuant to subdivisions (g) to (j), inclusive.

(2) From funds provided in the annual Budget Act, the board of governors shall allocate to community college districts, pursuant to this subdivision, an amount equal to 2 percent of the fees waived pursuant to subdivisions (g) to (j), inclusive. From funds provided in the annual Budget Act, the board of governors shall allocate to

community college districts, pursuant to this subdivision, an amount equal to ninety-one cents ($0.91) per credit unit waived pursuant to subdivisions (g) to (j), inclusive. It is the intent of the Legislature that funds provided pursuant to this subdivision be used to support the determination of financial need and delivery of student financial aid services, on the basis of the number of students for whom fees are waived. It also is the intent of the Legislature that the funds provided pursuant to this subdivision directly offset mandated costs claimed by community college districts pursuant to Commission on State Mandates consolidated Test Claims 99-TC-13 (Enrollment Fee Collection) and 00-TC-15 (Enrollment Fee Waivers). Funds allocated to a community college district for determination of financial need and delivery of student financial aid services shall supplement, and shall not supplant, the level of funds allocated for the administration of student financial aid programs during the 1992-93 fiscal year.

(n) The board of governors shall adopt regulations implementing this section.

(o) This section shall be inoperative and is repealed on May 1, 2012, only if subdivision (b) of Section 3.94 of the Budget Act of 2011 is operative.

Student Success Act of 2012
Summary of Key Elements in Proposed Bill Language
February 1, 2012

EC 78210 Renames Matriculation Act the Seymour-Campbell Student Success Act of 2012

EC 78211 Refocuses and updates Matriculation language to align with the recommendations from the Student Success Task Force regarding the program of study and the use of effective, evidenced-based student services.

EC 78211.5 Provides strong framing of purpose, in line with SSTF agenda:

- Importance of orientation, assessment and placement, and education planning in promoting students' successful completion of educational goals.
- Focus on completion of degrees, certificates, and transfer.
- Reinforces need to harness new technologies to assist in delivering these support services.

EC 78212 1) Delineates the student's and the institution's responsibility for the purpose of achieving the student's educational goals and completing the student's program of study.

2) Targets funding on core matriculation services and prioritizes the use of Student Success Act funds for the following:

- Orientation services
- Common assessment and educational planning services upon enrollment
- Development of education plans leading to a program of study and guidance on course selection.

3) Specifies that once the BOG adopts a system of common assessment, districts and colleges may use supplemental assessments or other measures for placement.

EC 78214 Makes minor and clarifying changes to more effectively align institutional research to evaluate the effectiveness of the Student Success and Support Program.

EC 78215 Defines role of BOG in developing policies for: exempting students; requiring student participation in activities; and appeals processes.

EC 78216 Clarifies the use of existing matriculation funds for Student Success and Support Program services.

EC 78216(b)(3) As a condition of receipt of funds, requires districts to implement common assessment and student success scorecard, once these are established by the BOG.

EC 78216(c)(6) Links college Student Success and Support Program plans to college student equity plans—reinforces SSTF equity agenda.

BOG Fee Waiver

EC 85757(g)(1) Places conditions on eligibility for BOG Fee Waiver. Students must:

(A) identify a degree, certificate, transfer or career advancement goal;
(B) meet academic and progress standards, including a maximum unit cap, as defined by the BOG;
(C) These conditions will be phased in over a reasonable period of time as determined by the BOG.

General Education Review Request
AREA II - ENGLISH

Course Number & Title: ENGL 1S/T (42 S/T): INTEGRATED COMPOSITION AND READING

Breadth Criteria:

At Foothill College, the primary objective of the general education requirements is to provide students with the depth and breadth of knowledge and understanding required to be independent, thinking persons who are able to interact successfully with others as educated and productive members of our diverse society. Design and implementation of the general education curriculum ensures that students have exposure to all major disciplines, understand relationships among the various disciplines, and appreciate and evaluate the collective knowledge and experiences that form our cultural and physical heritage. General education courses provide content that is broad in scope and at an introductory depth, and all require critical thinking.

A general education enables students to clarify and present their personal views as well as respect, evaluate, and be informed by the views of others. This academic program is designed to facilitate a process that enables students to reach their fullest potential as individuals, national and global citizens, and lifelong learners for the 21st century.

In order to be successful, students are expected to have achieved minimum proficiency in math (MATH 105) and English (ENGL 1A, 1AH or ESL 26) before enrolling in a GE course.

A completed pattern of general education courses provides students with opportunities to acquire, practice, apply, and become proficient in each of the core competencies listed below.

B1. Communication (analytical reading, writing, speaking, and listening skills including evaluation, synthesis, and research).
B2. Computation (application of mathematical concepts, and/or using principles of data collection and analysis to solve problems).
B3. Creative, critical, and analytical thinking (reasoning, questioning, problem solving, and consideration of consequence).
B4. Community and global consciousness and responsibility (consideration of one's role in society at the local, regional, national, and global level in the context of cultural constructs and historical and contemporary events and issues).
B5. Information competency (ability to identify an information need, to find, evaluate and use information to meet that need in a legal and ethical way) and digital literacy (to teach and assess basic computer concepts and skills so that people can use computer technology in everyday life to develop new social and economic opportunities for themselves, their families, and their communities).

Depth Criteria for Area II – English:

English composition courses address the literacy needs of the student in both academic and work-related tasks. The curricula concentrate on two core intellectual skills: comprehension and written expression at the college level. Comprehension includes the interaction of the reader with the text in order to extract meaning, discern patterns, and evaluate information. Written expression includes the student's understanding of audience and purpose, rhetorical and structural devices, supporting evidence, and effective and varied syntax. These courses also introduce that student to the aesthetics and power of the written word.

Courses meeting the English General Education Requirement ***must*** require students to:

E1. Read and understand the written word, including comprehension, interpretation, analysis, evaluation, and synthesis of college-level expository, narrative, and argumentative non-fiction prose;
E2. Write extended expository text-based compositions (minimum of 6,000 total word count) based on college-level readings, academic subject matter, and class discussion;
E3. Think critically by recognizing and evaluating ideas, differentiating facts, inferences, opinions, and assumptions, and drawing and assessing conclusions;
E4. Formulate an arguable thesis appropriate to audience and purpose and substantiate it through logical and systematic organization, supporting evidence, and clarity of expression;
E5. Understand and implement the principles of written argumentation including induction and deduction, counter-arguments and concessions;
E6. Use the sequential process of multiple drafts and revision in producing articulate and grammatically correct written expression;
E7. Recognize and implement varied syntactical, rhetorical, and structural devices;
E8. Research print and electronic media and attribute sources through textual citations and MLA documentation.

General Education Review Request
AREA II - ENGLISH

Course Number & Title: **English 42 S/T: INTEGRATED COMPOSITION AND READING**

Please map each appropriate **Course Outcome/Objective** from the **Course Outline of Record** to the appropriate depth and breadth criteria.

Depth Map: Must include the following:

E1. Read and understand the written word, including comprehension, interpretation, analysis, evaluation, and synthesis of college-level expository, narrative, and argumentative non-fiction prose;

Matching course objective(s):

2. Expected Outcomes - The student will be able to:

- Understand reading and writing as a means to think critically and to develop and articulate own perspectives
    1. Identify contexts, purposes, and rhetorical decisions that shape reading and writing in order to understand the nature of effective communication and discourse.
    2. Read primarily non-fiction texts actively and effectively and think critically about information acquired from readings, research, and other sources.
    3. Recognize and employ critical thinking skills including comprehension, application, analysis, evaluation, and synthesis.
    4. Articulate (verbally and in writing) own perspective based on critical evaluation of texts.

E2. Write extended expository text-based compositions (minimum of 6,000 total word count) based on college-level readings, academic subject matter, and class discussion;

Matching course objective(s):

2. Expected Outcomes - The student will be able to:

- Understand reading and writing as an integrated processes for meaning-making and communication
    1. Analyze college-level expository, narrative, and argumentative non-fiction prose for use as source information and/or model for writing
    2. Read and write extended expository compositions, increasing in length and complexity, that articulate a perspective in relation to and informed by whole texts and class discussion.
    3. Identify and formulate arguable theses.
    4. Identify and formulate logical and systematic patterns of organization
    5. Recognize and develop topics and main ideas at the paragraph level
    6. Identify syntactical structures and apply to the editing of writing to achieve sentence variety and maturity.
    7. Use vocabulary strategies to identify and produce diction (including connotative language) and tone appropriate to the content, audience, and purpose of the specific writing task.
    8. Identify grammatical patterns and apply to the proofreading of writing to the degree that the nature and frequency of errors do not become distracting.

E3. Think critically by recognizing and evaluating ideas, differentiating facts, inferences, opinions, and assumptions, and drawing and assessing conclusions;

Matching course objective(s):

2. Expected Outcomes - The student will be able to:

- Identify oneself as a part of larger academic discourse communities
    1. Demonstrate reading comprehension and construct meaning through summary
    2. Identify and synthesize inter-textual relationships among multiple works (published and student texts)
    3. Collaborate with others during the reading and writing process, offering constructive criticism and accepting the criticism of others
    4. Recognize differences and/or similarities in cultural value systems represented in various texts and within readers.
- Understand reading and writing as a means to think critically and to develop and articulate own perspectives
    1. Identify contexts, purposes, and rhetorical decisions that shape reading and writing in order to understand the nature of effective communication and discourse.
    2. Read primarily non-fiction texts actively and effectively and think critically about information acquired from

readings, research, and other sources.
3. Recognize and employ critical thinking skills including comprehension, application, analysis, evaluation, and synthesis.
4. Articulate (verbally and in writing) own perspective based on critical evaluation of texts.

E4. Formulate an arguable thesis appropriate to audience and purpose and substantiate it through logical and systematic organization, supporting evidence, and clarity of expression;

Matching course objective(s):

2. Expected Outcomes - The student will be able to:

- Understand reading and writing as an integrated processes for meaning-making and communication
  1. Analyze college-level expository, narrative, and argumentative non-fiction prose for use as source information and/or model for writing
  2. Read and write extended expository compositions, increasing in length and complexity, that articulate a perspective in relation to and informed by whole texts and class discussion.
  3. Identify and formulate arguable theses.
  4. Identify and formulate logical and systematic patterns of organization
  5. Recognize and develop topics and main ideas at the paragraph level
  6. Identify syntactical structures and apply to the editing of writing to achieve sentence variety and maturity.
  7. Use vocabulary strategies to identify and produce diction (including connotative language) and tone appropriate to the content, audience, and purpose of the specific writing task.
  8. Identify grammatical patterns and apply to the proofreading of writing to the degree that the nature and frequency of errors do not become distracting.

E5. Understand and implement the principles of written argumentation including induction and deduction, counter-arguments and concessions;

2. Expected Outcomes - The student will be able to:

- Understand reading and writing as an integrated processes for meaning-making and communication
  1. Read and write extended expository compositions, increasing in length and complexity, that articulate a perspective in relation to and informed by whole texts and class discussion.
  2. Identify and formulate arguable theses.
  3. Identify and formulate logical and systematic patterns of organization

E6. Use the sequential process of multiple drafts and revision in producing articulate and grammatically correct written expression;

2. Expected Outcomes - The student will be able to:

- Reflect on their own reading and writing processes as an avenue to achieving greater control of these processes and increased effectiveness as a reader and writer
  1. Use strategies for generating, revising, editing, and proofreading their own work
  2. Evaluate own writing as an advanced critical reader at the essay, paragraph, and sentence levels.

E7. Recognize and implement varied syntactical, rhetorical, and structural devices;

2. Expected Outcomes - The student will be able to:

- Understand reading and writing as a means to think critically and to develop and articulate own perspectives
  1. Identify contexts, purposes, and rhetorical decisions that shape reading and writing in order to understand the nature of effective communication and discourse.
  2. Read primarily non-fiction texts actively and effectively and think critically about information acquired from readings, research, and other sources.

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3. Recognize and employ critical thinking skills including comprehension, application, analysis, evaluation, and synthesis.
4. Articulate (verbally and in writing) own perspective based on critical evaluation of texts.

E8. Research print and electronic media and attribute sources through textual citations and MLA documentation.

2. Expected Outcomes - The student will be able to:

- Understand and value of academic integrity and demonstrate ethical conduct.
  1. Integrate appropriate text citations and MLA documentation

Breadth Mapping: please indicate all that apply (if applicable)

B1. Communication (analytical reading, writing, speaking, and listening skills including evaluation, synthesis, and research)

A. **2. Expected Outcomes -** The student will be able to:

Identify oneself as a part of larger academic discourse communities

1. Demonstrate reading comprehension and construct meaning through summary
2. Identify and synthesize inter-textual relationships among multiple works (published and student texts)
3. Collaborate with others during the reading and writing process, offering constructive criticism and accepting the criticism of others
4. Recognize differences and/or similarities in cultural value systems represented in various texts and within readers.

B. Understand reading and writing as a means to think critically and to develop and articulate own perspectives
   1. Identify contexts, purposes, and rhetorical decisions that shape reading and writing in order to understand the nature of effective communication and discourse.
   2. Read primarily non-fiction texts actively and effectively and think critically about information acquired from readings, research, and other sources.
   3. Recognize and employ critical thinking skills including comprehension, application, analysis, evaluation, and synthesis.
   4. Articulate (verbally and in writing) own perspective based on critical evaluation of texts.

C. Understand reading and writing as an integrated processes for meaning-making and communication
   1. Analyze college-level expository, narrative, and argumentative non-fiction prose for use as source information and/or model for writing
   2. Read and write extended expository compositions, increasing in length and complexity, that articulate a perspective in relation to and informed by whole texts and class discussion.
   3. Identify and formulate arguable theses.
   4. Identify and formulate logical and systematic patterns of organization
   5. Recognize and develop topics and main ideas at the paragraph level
   6. Identify syntactical structures and apply to the editing of writing to achieve sentence variety and maturity.
   7. Use vocabulary strategies to identify and produce diction (including connotative language) and tone appropriate to the content, audience, and purpose of the specific writing task.
   8. Identify grammatical patterns and apply to the proofreading of writing to the degree that the nature and frequency of errors do not become distracting.

D. Reflect on their own reading and writing processes as an avenue to achieving greater control of these processes and increased effectiveness as a reader and writer
   1. Use strategies for generating, revising, editing, and proofreading their own work
   2. Evaluate own writing as an advanced critical reader at the essay, paragraph, and sentence levels.

E. Understand and value of academic integrity and demonstrate ethical conduct.
   1. Integrate appropriate text citations and MLA documentation

B2. Computation (application of mathematical concepts, and/or using principles of data collection and analysis to solve problems).

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Matching course objective(s):

B3. Creative, critical, and analytical thinking (reasoning, questioning, problem solving, and consideration of consequence)

A. **2. Expected Outcomes -** The student will be able to:

Identify oneself as a part of larger academic discourse communities

1. Demonstrate reading comprehension and construct meaning through summary
2. Identify and synthesize inter-textual relationships among multiple works (published and student texts)
3. Collaborate with others during the reading and writing process, offering constructive criticism and accepting the criticism of others
4. Recognize differences and/or similarities in cultural value systems represented in various texts and within readers.

Understand reading and writing as a means to think critically and to develop and articulate own perspectives

1. Identify contexts, purposes, and rhetorical decisions that shape reading and writing in order to understand the nature of effective communication and discourse.
2. Read primarily non-fiction texts actively and effectively and think critically about information acquired from readings, research, and other sources.
3. Recognize and employ critical thinking skills including comprehension, application, analysis, evaluation, and synthesis.
4. Articulate (verbally and in writing) own perspective based on critical evaluation of texts.

Understand reading and writing as an integrated processes for meaning-making and communication

1. Analyze college-level expository, narrative, and argumentative non-fiction prose for use as source information and/or model for writing
2. Read and write extended expository compositions, increasing in length and complexity, that articulate a perspective in relation to and informed by whole texts and class discussion.
3. Identify and formulate arguable theses.
4. Identify and formulate logical and systematic patterns of organization
5. Recognize and develop topics and main ideas at the paragraph level
6. Identify syntactical structures and apply to the editing of writing to achieve sentence variety and maturity.
7. Use vocabulary strategies to identify and produce diction (including connotative language) and tone appropriate to the content, audience, and purpose of the specific writing task.
8. Identify grammatical patterns and apply to the proofreading of writing to the degree that the nature and frequency of errors do not become distracting.

Reflect on their own reading and writing processes as an avenue to achieving greater control of these processes and increased effectiveness as a reader and writer

1. Use strategies for generating, revising, editing, and proofreading their own work
2. Evaluate own writing as an advanced critical reader at the essay, paragraph, and sentence levels.

Understand and value of academic integrity and demonstrate ethical conduct.

1. Integrate appropriate text citations and MLA documentation

B4. Community and global consciousness and responsibility (consideration of one's role in society at the local, regional, national, and global level in the context of cultural constructs and historical and contemporary events and issues).

2. Expected Outcomes - The student will be able to:

- Identify oneself as a part of larger academic discourse communities
  1. Demonstrate reading comprehension and construct meaning through summary
  2. Identify and synthesize inter-textual relationships among multiple works (published and student texts)
  3. Collaborate with others during the reading and writing process, offering constructive criticism and accepting the criticism of others

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4. Recognize differences and/or similarities in cultural value systems represented in various texts and within readers.

B5. Information competency (ability to identify an information need, to find, evaluate and use information to meet that need in a legal and ethical way) and digital literacy (to teach and assess basic computer concepts and skills so that people can use computer technology in everyday life to develop new social and economic opportunities for themselves, their families, and their communities).

4. Expanded Description of Course Content - Writing

- Understand reading and writing as a means to think critically and to develop and articulate own perspectives
  1. Identify contexts, purposes, and rhetorical decisions that shape reading and writing in order to understand the nature of effective communication and discourse.
  2. Read primarily non-fiction texts actively and effectively and think critically about information acquired from readings, research, and other sources.
  3. Recognize and employ critical thinking skills including comprehension, application, analysis, evaluation, and synthesis.
  4. Articulate (verbally and in writing) own perspective based on critical evaluation of texts.

- Understand and value of academic integrity and demonstrate ethical conduct.
  1. Integrate appropriate text citations and MLA documentation

Requesting Faculty: Valerie Fong, Brian Lewis, Susie Huerta Date: January 14, 2011

Division Curr Rep: Kella Svetich Date: January 14, 2011

REVIEW COMMITTEE USE ONLY:

Review Committee Members:

Simon Pennington

Comments:

Sub-committee recommends approval. 1/22/12

Approved: _____ Denied: _____ CCC Co-Chair Signature: _____ Date: _____

Petition to Replace Substandard Grade for Foothill College GPA Calculation

When a substandard grade (D+, D, D-, F, NC, or NP) was recorded at Foothill, an equivalent course may subsequently be completed at another accredited college or university. The student's academic transcript shall then be annotated to reflect exclusion of the previously recorded course work with the substandard grade for purposes of grade point calculation and for all considerations associated with the awarding of certificates and degrees. Replacement with a grade of Pass/No Pass is **not** permitted, as it does not improve your GPA. It is important to note that all grades remain on the academic transcript, and that some transfer institutions may require recalculation of the GPA to include both the substandard grade and the subsequent grade.

When submitting this petition, students must attach:

1. a copy of their transcript
2. either the course outline of record or the course catalog description to confirm course equivalency.

NOTE: It is strongly recommended that students consult with the appropriate Foothill division dean to confirm equivalency with discipline faculty BEFORE repeating the course.

*Official (sealed) transcripts from the other regionally-accredited institution must be submitted to Foothill College Records Office before submitting this petition.

*Form data fields to include SID, name, date, FH course identifier, date FH course taken and initial grade, equivalent course identifier, date repeated and grade earned upon repetition, student signature, faculty and dean signature.

GENERAL EDUCATION IN THE 21ST CENTURY

A REPORT OF THE UNIVERSITY OF CALIFORNIA COMMISSION ON GENERAL EDUCATION IN THE 21ST CENTURY

GENERAL EDUCATION IN THE 21ST CENTURY

A REPORT OF THE UNIVERSITY OF CALIFORNIA

COMMISSION ON GENERAL EDUCATION IN THE 21ST CENTURY

April 2007

Center for Studies in Higher Education
University of California, Berkeley

http://cshe.berkeley.edu/research/gec/

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Carnegie Corporation of New York and the William and Flora Hewlett Foundation.

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MEMBERS OF THE COMMISSION ON GENERAL EDUCATION IN THE 21ST CENTURY

Michael Schudson (co-chair)
Professor, Communication and Adjunct Professor, Sociology, UC San Diego, and Professor, Graduate School of Journalism, Columbia University

Neil J. Smelser (co-chair)
University Professor of Sociology Emeritus, UC Berkeley

Jodi Anderson
2004-05 UC Student Regent, UC Los Angeles

Mark Appelbaum
Professor, Psychology, and Associate Vice Chancellor, Undergraduate Education, UC San Diego

Thomas Carew
Bren Professor, Department of Neurobiology and Behavior, UC Irvine

Pedro Castillo
Provost, Oakes College and Associate Professor, History, UC Santa Cruz

Lynda Goff
Professor, Biology, UC Santa Cruz

Andrew Grosovsky
Professor, Cell Biology and Vice Provost for Undergraduate Education, UC Riverside

Patricia J. Gumport
Vice Provost for Graduate Education, Professor, Education, and Director, Stanford Institute for Higher Education Research, Stanford University

Diane Harley
Senior Researcher, Center for Studies in Higher Education, UC Berkeley

Gregg Herken
Professor, School of Social Sciences, Humanities, and Arts, UC Merced

Stanley Katz
Professor, Woodrow Wilson School of Public Policy and Director, Center for Arts and Cultural Policy Studies, Princeton University

M. Gregory Kendrick
Professor, History and Director, Freshman Cluster Program, UC Los Angeles

Annie King
Professor, Animal Science, UC Davis

Joseph Kiskis
Professor, Physics, UC Davis

Raymond Knapp
Professor, Musicology, UC Los Angeles

William Ladusaw
Vice Provost & Dean of Undergraduate Education and Professor, Linguistics, UC Santa Cruz

Roger McWilliams
Professor, Physics & Astronomy, and Director, Campuswide Honors Program, UC Irvine

Yolanda Moses
Professor, Vice Provost and Special Assistant to the Chancellor for Excellence and Diversity, UC Riverside

Carolyn Porter
Professor, English, UC Berkeley

Julie Reuben
Professor, Graduate School of Education, Harvard University

Barbara Sawrey
Senior Lecturer and Vice Chair, Chemistry and Biochemistry, UC San Diego

Chand R. Viswanathan
Distinguished Professor Emeritus, Electrical Engineering, UC Los Angeles

M. Stephen Weatherford
Professor, Political Science, UC Santa Barbara

Muriel Zimmerman
Sr. Lecturer Emerita, Writing, UC Santa Barbara

PREFACE

The seeds of this report date from the years 1996-1999, the active years of the Penn Commission on Society, Culture and Community, which was convened by Judith Rodin, then-President of the University of Pennsylvania, and supported by the Atlantic Philanthropies. This Commission concerned itself with a wide range of cultural, moral, and political issues connected to the quality of public discourse and political culture in our democracy. The results of its work were published in 2003, in a volume entitled *Discourse in America: Conversation and Community in the Twenty-First Century*.[1]

We, Michael Schudson and Neil Smelser, were both members of the Penn Commission and contributors to its summary volume. We had known one another professionally before we were invited to join the Commission, but we grew close during its work, discussing between ourselves issues that arose, and developing our own views about the Commission and its work. We discovered how similar our thoughts were on many issues of the day.

In 2002, we began an email exchange, raising concerns about the state of general education in the United States and discussing how we might in some way join forces to contribute to and possibly influence the dialogue on that perennial topic. Over the next months we refined our ideas and came to focus on a collective project that would look at general education at the University of California (UC), where we had both made our careers. Our hope was to create a commission—which later came to be known as the Commission on General Education in the 21st Century—that would focus on the UC system, but would also raise questions and develop diagnoses and recommendations that might apply more generally.

We subsequently brought these ideas to the Office of the President of the University of California, to the Systemwide Academic Senate, and to the Center for Studies in Higher Education (CSHE) on the Berkeley campus. The Office of the President and the Academic Senate received our ideas very warmly and gave official expressions of support. CSHE expressed a willingness to house the hypothetical project. In fact, we received every imaginable form of support—except financing—from the University of California. The Office of the President provided funds for a small feasibility meeting, but a budget to support the work of a major commission could not be guaranteed. The feasibility group met on April 21, 2003, explored issues and prospects in-depth and, in the end, voted its strong support for the envisioned commission.

Buoyed by all of the institutional support and not overly discouraged by lack of resources, we turned to philanthropic foundations to seek the major funding. In the end, we received grants from Carnegie Corporation of New York and The William and Flora Hewlett Foundation of Palo Alto. We give special thanks to Dan Fallon of the Carnegie Corporation and Mike Smith of the Hewlett Foundation for their personal interest and support. We are grateful for this generous private support which, among other things, allowed the Commission an important degree of autonomy. We repeatedly sought advice from the Office of the President, officers of individual campuses, and officials of the Academic Senate, but nothing about their advice was mandatory, since we were assured support from other sources. We have thus proceeded independently throughout the entire course of our work.

With institutional support and financial resources in hand, we turned to the formidable task of constituting the Commission. This called for extensive consultation with university-wide officials, campus administrators and faculty members, and officers of the Academic Senate. We included at least one representative from every UC campus, and added several representatives from non-UC private institutions. We strove for disciplinary diversity as well as a mix of administrative and faculty personnel. We were gratified that almost all of the individuals initially invited to join the Commission on General Education in the 21st Century agreed to serve and we regard this as a measure of commitment to the general education process on the University of California campuses. The members of the Commission are listed on page v.

Our plans for the Commission's work included five collective meetings, held between 2004 and 2006. We were impressed with the intellectual vitality of each of these meetings. In the intervals between meetings, Diane Harley, Senior Researcher at the Center for Studies in Higher Education and a member of the Commission, coordinated research, dealt assignments to individual Commission members, directed the work and activities of a series of research assistants hired to work on behalf of the Commission, provided editorial oversight, and advised on the section covering new technologies. In the later phases of the Commission's work, we drafted materials to reflect the discussions and points of consensus generated in the meetings.

As co-chairs, we would like to extend our thanks to the Commission members for their time, work, and insights, as well as to the university administrators and faculty members who offered strong and continuous support for the project. Chief among the latter were Julius Zelmanowitz of the UC Office of the President; Gayle Binion of the Academic Assembly; Karl Pister, Director of the Center for Studies of Higher Education (CSHE) from 2002-2004; and C. Judson King, Director of CSHE from 2004-present and Provost and Senior Vice President Emeritus, Academic Affairs, UC Office of the President. We are grateful also to Carol Schneider, president of the American Association of Colleges and Universities, who shared her insights with Commission members at one of our meetings. We record our warmest thanks to Diane Harley, whose work was invaluable,

to several research and editorial assistants, including Deborah Apsel, Meghana Acharya, Cam Rutter, and Jonathan Henke, and to the administrative staff at CSHE and UC San Diego. Our special thanks to Shannon Lawrence for managing the final editorial process.

Michael Schudson
University of California, San Diego

Neil J. Smelser
University of California, Berkeley

EXECUTIVE SUMMARY AND RECOMMENDATIONS

Diagnosis and understanding are prerequisites to sound recommendation. With this in mind, this report analyzes the historical, institutional, and cultural contexts of general education in the United States. We focus mainly (but not exclusively) on large public universities, with special reference to the California higher education system. We provide an overview of the history of U.S. higher education, with special attention to the emergence of major research institutions and the dominance in them of discipline-based departments.

Reform of general education must recognize the dominant academic culture in major research institutions, which gives precedence to recognition for published research and other creative activity. This culture exercises a decisive influence on the incentives and motivations of professional academics. Institutional, organizational, budgetary, and cultural contexts that we identify constrain the vigorous development of courses and programs in general education. At the same time, only if we understand these features of higher education can we realistically identify opportunities for improving general education in its university context.

The first line of improvement the Commission envisions is administrative. Our starting-point is the recent creation of positions of chief undergraduate education officer[2] on the University of California campuses in the past dozen years. The Commission regards this as a very important and positive step toward improving campuses' general education programs, although we have found a number of anomalies and weaknesses that characterize these positions. Correspondingly, we recommend bringing these positions more centrally into the administrative core of the university, giving high priority to their innovative potential and providing the incumbents with a renewable pool of funds to dedicate to innovation and experimentation.

With respect to curricular innovation in general education, the Commission readily acknowledges the obstacles to innovation that reside in the structure and culture of the contemporary university, and in the orientations of most faculty, students, and administrators. As one alternative to the dominant structure of general education—a sprawl of cafeteria-style breadth requirements—we recommend the creation of structured interdisciplinary bundles of courses on timely intellectual and applied issues, made available to students as discrete, named sets and identified as such on students' transcripts.

We also recommend extension of and improvements in freshman-sophomore seminars, capstone courses, problem-oriented courses offered by departments, and undergraduate involvement in research.

The Commission highlights especially the need for renewed attention to civic education as part of general education. We identify the new dimensions and problems of civic education in our rapidly changing world and the necessary components of good civic education in a democracy. In light of this, we advocate that campuses intensify the "civic experience" of students in their collegiate years, specifically in the form of student activities that combine civic engagement with research and reflective analysis.

The Commission considers next the difficulty for universities in governing general education requirements that students take outside the university from which they will graduate. This includes two large and increasingly important phenomena: the taking of "advanced placement" (AP) courses in high school and the transfer of AP credits, and the process of transferring to the university after some experience in community college or state-university settings. We recommend two strategies: first, that universities continue and extend working cooperatively with high schools and "feeder" colleges to coordinate general education expectations and offerings, and, second, that they extend and improve their general education offerings at the upper-division level.

The Commission sees implications for general education in the spread of new technologies in higher education. They can help improve educational quality, reduce costs, and widen access. At the same time, they are no panacea, and we identify a number of limits and excesses that uncritical application of new technologies can generate.

Improving general education requires not only initiating structural changes but sustaining a campus culture that supports general education. There is a need to publicize general education's value and, where possible, to reward the constituents and individuals involved in it. With this in mind, the Commission addresses methods for informing, supporting, and encouraging faculty, graduate students, and temporary faculty, as well as advising staff, undergraduates, parents, chancellors and presidents, and alumni.

Finally, while acknowledging the difficulties of effective educational evaluation, we recommend that campuses build in systematic machinery to evaluate general education courses and programs in their various phases of development and execution.

The following recommendations are directed to the University of California campuses in particular, but have implications for public and private universities nationwide:

1. Campuses should systematize their commitment to general education by re-casting and extending the role of chief undergraduate education officers. In particular, these positions should (a) be assured a conspicuous place, voice, and role in the central administration of campuses; (b) be given ample discretionary, renewable annual budgets and other resources to promote courses and programs in general education; and (c) be protected, where appropriate, from routine administrative chores, in order to enhance opportunities for initiative and innovation. (See *Section 4: Integrating General Education into the Fabric of the University.*)

2. Campuses should give high priority to ensuring appropriate incentive structures that enable faculty to participate in general education enterprises, thus easing a principal impediment to faculty involvement in general education. (See *Section 4: Integrating General Education into the Fabric of the University.)*

3. As one alternative to the "cafeteria approach" to general education—when students choose a set of courses from an unwieldy list of general education courses—campuses should develop a discrete number of thematic, interdisciplinary bundles or sequences of courses around substantive and timely topics. These packages could be considered a substitute for discipline-based minors and could receive full academic recognition, so indicated on students' transcripts. Students could select any given thematic package voluntarily, but once selected, all of its constituent parts would be required. (See *Section 5: Curricular Innovation.)*

4. Campuses should give the highest priority to advancing the civic education and engagement of their undergraduates. In particular, they should expand and consolidate courses and programs that combine (a) students' volunteer, service, or political work; (b) instruction in the academic significance and importance of that work; and (c) individual or group-based student research related to their community involvement. (See *Section 6: Thinking through the Civic Dimension.)*

5. The University of California and its campuses should evaluate the implications of advanced placement credit and the academic work of transfer students for the general education of its students. They should cooperate fully and equally with high schools, community colleges, and state universities, in order to safeguard the integrity and maximize the quality and effectiveness of the general education of students who spend only part of their educational careers at the University. (See *Section 7: Transfer of Credits and Transfer Students.)*

6. Administrators and faculty should pursue applications of new information and communication technologies to enhance teaching and learning, and potentially lower costs and increase access to their institutions. At the same time, administrators should assure that educational quality is not inadvertently sacrificed in the process. (See *Section 8: New Technologies and General Education.)*

7. Campus administrators and faculty should actively and continuously strive to educate all of their constituencies on the value, rationale, and goals of general education, and make clear the opportunities for its pursuit on their campuses. Academic Affairs, as well as Student Affairs, should engage in efforts to integrate transfer students into the university, with specific course work designed for transfer students (including one-unit courses modeled on freshman seminars). (See *Section 9: Encouraging a Culture that Supports General Education.)*

8. To assure the quality of general education, campuses should (a) establish machinery in their Academic Senate divisions dedicated to initiating, monitoring, and reviewing general education courses, programs, and experiments; and (b) require designers and teachers in general education to provide statements of the goals of their efforts, to specify means of implementing these goals, and subject their work to periodic internal and external evaluation. (See *Section 10: Evaluating General Education Courses and Programs.)*

PROLOGUE

Writing in 1867, John Stuart Mill noted that education was "one of the most inexhaustible of topics."[3] Several years later, he described his age as one in which "education, and its improvement, are the subject of more, if not profounder, study than at any former period of English history."[4] Mill was referring to the never-ending debates about British working-class education—shrouded in issues of religion and class as well as public concerns about the performance of middle class schools and the role of the historic public schools in the cultivation of the nation's elite. In the first three-quarters of the century, these issues had consumed more pages in the reports of Parliamentary debates than any other subject save the Irish Question.

The history of American education is similarly wordy. Educators, politicians, and the general public have all placed heavy demands on public education. Why should this be? Through its history, American education has been asked to instill the values of republican virtue in the young people of a young nation, to assure literacy, to aid in the formation of a competent and civil working class as the country industrialized, to Americanize immigrants, to foster upward social mobility, and to contribute to great war efforts. In recent decades, education has been both blessed and burdened with new expectations: to provide the United States with tools to catch up with and surpass the Soviet Union in space, to generate the skills needed for an economy with a burgeoning service sector, to carry much of the weight of affirmative action, and to assure international economic competitiveness. In effect, the institution has been asked to provide the answers for a host of social problems that it alone cannot realistically solve.

This fact alone would be sufficient to breed disappointment and repeated episodes of wordy recrimination. If we add—particularly at the primary and secondary levels—that education and teachers have never been accorded the resources or prestige that such great demands would seem to justify, the stage is fully set for a history of public ambivalence toward the educational system in the United States.

We might extend this discouraging logic to the topic of general education in the nation's universities and colleges. Later we will note the multiple definitions—along with the correspondingly multiple demands—that have been assigned this function. We note also the pulsating—but, on the whole, increasing—condemnations of universities and colleges for failing in their general education missions. We have seen countless analyses, reports, and articles in academic journals that, in almost ritual repetition: (a) bemoan the failures and identify the "crisis" of general education, (b) sing its praises in general

terms, and (c) call for its revitalization along one set of lines or another.[5] We also witness a historical parade of reform efforts, most of which are short-lived, and none of which, either individually or cumulatively, have managed to stem the torrents of public criticism.

Given this apparent compulsion for repetition, we might legitimately ask: Why add yet another report at this time? How worthwhile is it to add another episode to the cycle of diagnosis-innovation-routinization, followed by renewed impatience? We address this question in the next section.

1 JUSTIFICATION

The Commission believes that there is not only justification but also urgency in providing the best diagnoses and recommendations about general education. We justify this belief as we respond to three questions: Why now? Why concentrate on public institutions? Why give special salience to California's system?

Why Now?

The beginning of the 21st century poses a qualitatively new challenge for general education and merits a fundamental and searching inquiry. This challenge is a complex one, resulting from many developments affecting higher education, including trends in the structure of American higher education itself, developments in the external environment of higher education, changes in the nature of citizen participation, new information and communication technologies, and increased difficulty in creating interdisciplinary offerings. We mention these five general developments directly below, and will enlarge on some of them in subsequent sections.

1. **Trends in the organization and culture of American educational institutions.** These trends are partly independent but partly connected with one another, and have changed the face of undergraduate education, including general education:

   i) Long-term consolidation of the "culture of research" in academia, not only in major research institutions but also, to a lesser extent, in non-doctoral state institutions and liberal arts colleges.

   ii) Fifty years of heavy involvement by the federal government in sponsoring and supporting large-scale research in universities, focusing mainly on the natural and life sciences.

   iii) Developments that have led to increasing vocationalism of undergraduate education. This is reflected in the rise of education in engineering, business, and other technical and professional fields, and the related shrinking of the percentage of "liberal arts" faculty at many universities. After 1970, students enrolled in traditional arts and sciences programs at four-year institutions became out-numbered by students in engineering, business, computer science, communication, and other pre-professional fields. Today, universities and colleges also compete with corporations that do in-house training and with commercial educational ventures that undertake to develop occupational skills. There is an important counter-current: some accreditation

organizations, notably in engineering, have grown insistent that professional schools require more, not less, general education. This is a rhetorical resource for advocates of general education that has not yet received the attention it deserves.

iv) A subtle but profound change in curricular emphasis, with an eroded consensus on (and discomfort with) setting priorities for what constitutes necessary general knowledge for undergraduates. One facet of this change is the continued dominance of the "cafeteria-ization" of course selection. Another facet of this change is reflected in the cultural controversies over curricula of the 1980s, which generated dissatisfaction with long-standing priorities for general education and disputes as to what should be regarded as the country's shared heritage.

2. **Exceptional changes in the environment of higher education.** Several significant social changes have altered the environment for curriculum in higher education. These include notably:

   i) The continuing diversification of students along the lines of age, gender, social class, ethnicity, race, religion, and culture.

   ii) The continuing interdependence of the world—including globalization—with an increased international flow of ideas, goods, capital, and people. This includes positive exchanges that lead to collaboration and innovation, as well as negative ones, such as the proliferation of disease.

   iii) The uncertain future of the nation-state and political democracy around the world.

   iv) Changing forms of warfare, with the threat of international terrorism extending indefinitely into the future.

   v) Changing and increasing demands for accountability from legislatures and accrediting organizations, with a growing emphasis on measurable educational outcomes.

   Taken together, these forces pose serious questions for colleges and universities. How should an educated person confront the radically altered circumstances of the 21st century? What are the obligations of these institutions of higher education to prepare educated citizens through general education?

3. **Changes in the nature of citizenship and citizen participation.** In recent decades, this country has seen a decline in deference to traditional cultural authorities or, to put this more positively, an increase in critical thought and inquiry. This stems in part from the rapid expansion of higher education itself and the reflective habits of mind that it is meant to inspire. It derives also from the civil rights movement and the many other movements it inspired for advocating a more inclusive, pluralistic, democratic society. A growing recognition that "the personal is political" has stretched conventional notions of what "the political" is and where and how civic engagement can be practiced. A shift of many political issues from local to global reference has

also challenged a traditional understanding of citizenship as primarily a matter of participation in local and national elections. If general education is regarded as a preparation for civic engagement, that engagement now makes new and different demands on those institutions that prepare the young.

4. **Changes in the delivery of education via new information and communication technologies**. These changes offer both new opportunities for teaching and learning, efficiency, and access to information, as well as challenges and limitations for instruction in colleges and universities.

5. **Consolidation of some structural and organizational impediments to interdisciplinary education and programs of general education.** These include the organizational dominance of discipline-based departments, decentralization of curricular responsibility, budgetary traditions, and the structure ncentives.

The cumulative weight of these developments offers a compelling answer to the question of "Why now?" and calls out for a fundamental assessment of collegiate general education.

Why Focus on Public Institutions?

The question "Why public institutions?" denotes the focus of our report, but the word "public" is unavoidably imprecise and demands clarification. We focus on the public sector for the reasons outlined below, but we believe that our diagnoses and recommendations apply more widely.

The main types of institutions we have in mind fall into two categories:

- The discrete number of public universities that have grown in size, selectivity, commitment to excellence in research and graduate training, and salience of professional schools—as well as some public universities that are striving to grow in such a fashion.

- Some large, selective private universities that have also developed those characteristics, and other private institutions—including some liberal arts colleges—that strive to develop research and creative activity by their faculties.

Despite this public/private convergence, commitment to liberal education in the United States remains more vital and evident in private universities. Over time, most of the noted general education initiatives have been implemented in private institutions, including the Harvard elective system as well as its Red Book general education innovations, the core curriculum at the University of Chicago developed in the 1930s and 1940s, and the "contemporary civilization" program at Columbia, which began in 1919.

The relative strength of liberal education at private universities can also be partially attributed to differing financial situations faced by public and private institutions. Both private and public institutions have had their financial ups and downs but, in general,

the privates have been able to maintain more favorable student-faculty ratios than large public institutions. In addition, because public universities rely on state financing, sustained and resource-rich programs of general education have proved more vulnerable to vicissitudes in state budgets.

In the second half of the twentieth century, most public institutions and many large, research-oriented privates were transformed by the burgeoning of graduate programs and externally funded research. This has overshadowed the commitment to undergraduate education at both public and private universities. Four-year liberal arts colleges retain a general education emphasis in its purest form, and state colleges and universities (a historical outgrowth of the normal schools) still regard themselves primarily as teaching institutions; however, the values of scientific and scholarly productivity and the competition for academic prestige (via research) have filtered into both. Emphasis on undergraduate education over the last fifty years has diminished most at large private and public institutions.

By virtue of their involvement in mass education, public institutions are characterized by a larger proportion of students who are not residential, by a larger proportion of students who transfer from community colleges and four-year colleges, and by higher rates of drop-out and stop-out, and lower graduation rates than private institutions. Sequential general education programs that assume the regular freshman-through-senior experience are, accordingly, less viable in the publics than in the privates.

On all counts—historical commitment, "massification" of education, level of wealth, financial vicissitudes, distraction by competing missions, and continuity of undergraduate experience—general education programs have faced, and do face, much greater obstacles in the publics than in the privates, and their institutional health is correspondingly more fragile.

Why California?

Within this scope of identified institutions, we give greater emphasis to the University of California system. California has institutionalized the largest, richest, and arguably the most successful system of public higher education in the United States. Its institutional arrangements among the community colleges, California State Universities, and the University of California, embodied in the Master Plan of 1960,[6] have served as a model to be consulted, if not fully emulated, by other state and national educational systems. As a system, the University of California has been remarkable for its level of individual campus experimentation in general education programs, as documented in appendix A of this report. For these reasons, a systematic and thorough assessment of California's unique situation offers particular salience and influence.

For better or for worse, California represents a dramatic case, one in which the forces affecting higher education—including general education programs—are likely to be extreme in the coming decades. We refer to the crisis occasioned by the explosive increase in college-age students, and the state's capacity to accommodate these numbers within the context of the Master Plan. We refer also to California's budgetary ups and downs occasioned by trends in the state's economy, fluctuations that are likely to continue. Finally, we refer to the fact that California is among the leading states in the presence and growth of ethnic and racial minorities, and in the resultant political complexities occasioned for higher education.

In sum, California's higher education system presents great potential for innovation and leadership in educational programs. The system lends itself well to systematic assessment of its educational missions and will have relevance for the issues faced by systems of higher education nationwide.

2 CLEARING THE UNDERBRUSH: SOME DEFINITIONAL AND HISTORICAL REFLECTIONS

The terms "general education" and "liberal education" evoke a family of meanings rather than a single universal one. For purposes of this report, the two terms will be used more or less interchangeably, although we will use "liberal education" to refer to a historic ideal to which a whole collegiate education should aspire. "General education" will refer to a specific set of programs in American education intended to offer a counter-balance to what is provided by a disciplinary "major." In this sense, "liberal education" refers to an educational ideal with roots in a training in classical languages and a gentlemanly education offered in European and American universities for centuries, while "general education" refers specifically to aspirations institutionalized in 20th century American universities to preserve elements of a liberal education in the face of the decline of a common collegiate curriculum.

In the context of the contemporary American university, the idea of general education represents a variety of overlapping emphases. It may refer to the importance of a set of common texts or common experiences in a world of increasingly splintered, multiple, and individualized educational offerings. Sometimes it emphasizes "basic" education—a number and variety of courses that comprise a minimum field of knowledge necessary for advanced work in many academic disciplines, as well as more general areas such as fundamentals of writing, critical thinking, mathematics, and courses related to civic responsibility. At other times, general education emphasizes breadth and diversity as opposed to the specialization for a disciplinary major. In this regard, general education may be specifically intended to introduce students to ways of thinking in a variety of disciplines. In addition, general education is often conflated with interdisciplinary education, particularly when a college or university has an administrative structure that offers some autonomy to a set of courses not offered by any individual department, but designed explicitly to cross disciplinary borders. General education may also refer to the knowledge and thinking required for civic and social responsibility.

Finally, proponents of general education avow that their aims cannot be attained by any particular content of courses taken, but only by habits of mind that students acquire regardless of course content. In a content-centered model of general education, it may be more important to read Shakespeare than science fiction for a host of reasons. In addition to becoming acquainted with one of the giants of the Western literary canon, understanding Shakespeare requires knowledge of historical context and an appreciation

of how aesthetic standards change or remain the same over time. Moreover, even an introductory acquaintance with the classics puts the student in touch with a culture shared broadly by educated members of society, thus bringing the student into that circle.

In a habits-of-mind general education model, however, there is limited value in knowing enough Shakespeare to recognize that Bugs Bunny is referring to Hamlet when he says, "To be or not to be, that is the question." In this model, it is much more important for a student to acquire in literary studies—whether studying Shakespeare or J.K. Rowling—an ability to read critically, to read between the lines, to recognize how rhetoric and argument are deployed, and to appreciate but also to resist the power of narrative or a tale well-told. What faculty hope to instill is the ability to generalize from one course or topic to the next, to write fluently and critically, to master a body of material, and to take a step beyond. They also hope to teach students to communicate logically about a common body of evidence and common rules of inference orally and in writing, and to link scientific or humanistic materials that seem remote from one another and from contemporary civic and social issues.[7]

Faced with such a variety of meanings, do we have to settle on one? A negative definition is not difficult: "general education" is the catch-all phrase that educators in higher education use to refer to those educational aspirations of their institutions that are not claimed by departments and disciplines. An encompassing positive definition may be more tentatively ventured: general education is the vehicle in higher education specifically focused on introducing students to ways of knowing, integrative knowledge, appreciation of historical context and common themes of human experience, social responsibility, civic (global and local) engagement, and the development of practical skills and reflective habits of mind.

The aspirations of higher education are by no means confined to education transmitted by faculty in classroom settings. For a century (and with growing sophistication and professionalization since World War II), college education, particularly in, but not restricted to, residential colleges, has been directed by both academic faculty and by student affairs personnel. These leaders coach sports teams; advise fraternities, sororities, and a plethora of student organizations; organize and supervise—whether for academic credit or not—off-campus internships; attend to students' religious, spiritual, and psychological needs; maintain residence halls as educational centers in themselves; and work with students on, or plan for students, a wide variety of non-credit educational activities whether lectures, mountain climbing trips, or film festivals. Finally, we cannot forget the educational significance of informal interaction among students themselves outside formal academic settings. Thus, while the particular concern of this report is on the classroom side of general education, we acknowledge that liberal education expresses an ideal about educating the whole person, and universities do not entrust that responsibility exclusively to their academic faculty.

Historian Sheldon Rothblatt has suggested that the greatest significance about the history of "the idea of a university" is that there has been such a long search for a single pure and enduring purpose for higher education. As Rothblatt observes, however, colleges and universities over time have served a multiplicity of purposes, "contradictory, confusing and ambiguous."[8] Robert Hutchins described the university as a set of schools and departments held together by a central heating system and Clark Kerr considered it "a series of individual faculty entrepreneurs held together by a common grievance over parking."[9] It should be clear that, like the idea of the university itself, the definitions and goals of general education are often ambiguous and difficult to pin down.

History

As indicated, many current educational scholars lament what they see as the collapse of collegiate general education for private and public institutions alike. The Commission subscribes neither to this extreme diagnosis nor to its opposite—that we have no cause for concern. Throughout this report we will attempt to identify both the strengths and vulnerabilities of general education as it exists in the 21st century.

Although contemporary images and ideals of what colleges should be are derived from practices going back hundreds of years, the specific concern with general education programs dates only to the late 19th century. Before that time, in the American tradition, colleges were designed to cultivate an elite class, both for those reared in wealthy families and for those from various ranks in society who would take on leadership roles in the clergy and other professions. Early colleges, going back to Harvard in 1636, were hierarchical, undemocratic, and faithful to a concept of the unity of knowledge under principles of Christian morality. This view of the character of knowledge did not change radically until the end of the 19th century. Vocational training, apart from preparation for the clergy, did not play an important role. Engineering, law, and medicine were taught through apprenticeship rather than classroom instruction. Where there was classroom instruction, it was frequently in independent, proprietary schools unaffiliated with non-profit colleges.

Early American colleges rarely lived up to their "liberal" billing or provided an "education to deepen and refine the capacity for significance response," in Raymond Williams' definition of liberal education.[10] Richard Hofstadter's portrait of the "old college" is probably on the mark: it was sectarian; paternalistic; under-funded; interested in character at the expense of intellect; resistant to teaching science, social science, or modern languages and literatures; and endlessly devoted to recitation as a method of teaching that "could deaden the most interesting subjects and convert faculty men of genuine intellectual and scholarly distinction into drillmasters."[11]

Until the middle of the nineteenth century, most institutions of higher education, whether religious or secular, were private, although the distinction between "private" and "public" institutions was less clear-cut than it is today. Harvard and Yale received state subsidies

and included government officials on their governing boards while early state universities, beginning in the South at the end of the 18th century, had self-perpetuating governing boards and installed classical curricula that resembled those of private institutions. All catered to the elite and well-to-do, and many had the mission of cultivating future political and community leaders. Instruction was dominated by the humanities, classics, philosophy, and history, though mathematics and science had roles as well.

All of this changed dramatically in the late 19th century. One vital development—still not fully assimilated into leading histories of higher education—was the expansion of public higher education after the Morrill Act of 1862. Public higher education from that time forward embraced the goals of vocational education and service to the practical needs of society. Education in agriculture, technology, engineering, and teacher training became important elements of the public university. State universities established or incorporated law schools, medical schools and, somewhat later, business schools, journalism schools, and others.

In the meantime, changes in the 1870s and after were also rapid and far-reaching in the leading private institutions. With the explosion of scientific knowledge and challenges to a religion-based concept of the world, there was a shift from a view that education transmits specific content to a view that schooling teaches a set of processes, methods, and attitudes in the acquisition of knowledge. This shift in view resulted in a radical change in the curriculum, from an emphasis on a prescribed set of courses capped with a final course in Christian ethics to a sense that knowledge of the world was growing, changing, and pluralistic. With the establishment of Johns Hopkins University in 1876, this new conception of knowledge was coupled with a growing identification of universities with research. At the undergraduate level, in the same era, Harvard initiated—and other universities quickly adopted—the elective system as a basic curricular principle. Early in the 20th century, in reaction to the shapelessness of the elective system, most colleges adopted a blend of concentration (or a "major") and distribution in the curriculum. Even so, the elective principle was by then well established, and held that the faculty should have the freedom to teach what it wanted and students should have the freedom to take the classes they preferred.

The elective system made sense in a world of growing religious skepticism, growing prestige for scientific research, and growing interest in the German model of a research university that The Johns Hopkins University imported. In this new world, where Christian-based moral philosophy no longer was an unrivaled claimant for defining the college experience, different areas of knowledge each made bids to be the central moral element in college education. The sciences claimed that a new moral discipline emerged in the acquisition of scientific knowledge—a critical mind, a skeptical intellect, and an intensely difficult set of concepts and accumulation of facts that required mental and

moral discipline to master. As college educators saw students fall away from organized religion—refusing to attend daily chapel, for instance—the appeal of science as moral discipline, linked to democracy and to the absence of prejudice, grew stronger.[12]

The social sciences claimed not only to inform students of the social world around them, but also to equip them with tools to determine how society's problems might be solved. In this way, the social sciences also offered to reintegrate academic knowledge around a principle of morality, a loosely Christian principle of social reform on behalf of the people least advantaged in a society.

Finally, the humanities made claim by the 1910s and 1920s that—in a world where both science and social science insisted on the neutrality of fact and the detachment of the investigator's own values and preferences from the content of investigative work—only the humanities continued an education of character through a direct examination of and growing sophistication about the moral life of the human being. As historian Julie Reuben argues, the developing identity of the humanities was "closely related to the efforts to find a secular substitute for religiously-based moral education and to the adoption of the idea that science was morally neutral."[13]

Elements of all of these claims survive. They compete with a variety of other claims that urge a set of specific requirements on the contemporary student and—like the claims of the sciences, social sciences, and humanities—are justified implicitly or explicitly as moral obligations. There are requirements designed to prepare students for life in a globalizing world, or for life in a multi-ethnic, pluralistic American society, or for life in a world where scientific and technological developments are unusually influential.

Early 20th century curricular reform sought to curb the excesses of elective education. It did not seek to restore a standardized curriculum but, as Reuben explains, to modify the elective system "to reduce the arbitrariness of the average student's education." It identified 'the college' as "a distinct entity within the university" and brought back notions of character formation as a key goal of college education.[14] Rarely did this lead to a core curriculum or a strong notion of general education. Faculty by the 1920s were fully committed to specialization in their disciplines and did not want to teach general education courses. But, in the 1910s and 1920s, reformers settled on "concentration and distribution requirements" as a brake on the elective principle. This turned out to be an enduring reform that remains at the heart of the curriculum in most American colleges and universities to this day.[15] More dramatic efforts to create a core curriculum or a common body of study for all students achieved partial success at Columbia University, the University of Chicago and, after World War II, Harvard. But these efforts tended to become distinctive—and very partial—features of a few institutions rather than innovations that were widely adopted across higher education. At the present time, the dominant picture at public and private universities throughout the United States is one that focuses on the major along with some requirements for breadth.

3 STRUCTURE AND CULTURE OF THE ACADEMIC DISCIPLINES

We continue our diagnosis of the decisive features of the environment for general education by turning to the contemporary structure of higher education. We concentrate on major research institutions, where the forces we identify are in clearest evidence.

The Structure of Academic Departments

For more than a century, the discipline-based academic department has been the backbone of the American university and college system. It is the primary unit of Colleges of Letters and Sciences (or Arts and Sciences), which are, in turn, the largest and most pivotal units for undergraduate education. Typically, departments are named after academic disciplines such as physics, psychology, or history, and are inhabited by faculty members who identify themselves by those disciplines, calling themselves not "college professors" but "physicists," "psychologists," and "historians." The departmental structure has proved remarkably stable, though new departments (for example, biophysics) are added when new and viable areas of knowledge emerge, and sometimes wholesale realignments are made (as in the recent history of the biological sciences). Increasingly, interdisciplinary and group majors have come to supplement the academic disciplines, but these are often composites of departmental offerings and have not replaced discipline-based departments as the core structural units of the college and university system.

Academic departments are central to the intellectual, organizational, budgetary, and curricular structure of colleges and universities. Each department has an internal administration of its own, comprised of graduate and undergraduate curriculum committees, personnel committees, admissions committees, and others. These departments are the career homes for their constituent faculty members, in that the department is the point of initiation for recommendations to appoint, promote, and advance faculty. (These recommendations are reviewed and made final or reversed at higher administrative levels.) In major research institutions, the department divides its teaching between graduate and undergraduate instruction, and the department chair oversees each and arranges—mainly through persuasion—the teaching schedules of his or her colleagues. Through the graduate degree programs, the department trains future professionals of their own design.

Academic departments are also the key budgetary units of the college, with department chairs submitting annual requests that are reviewed, altered, and ultimately approved by higher administrators. The special feature of the multiple-year commitment to "regular" faculty in the form of the FTE or "full-time equivalent" (carried to its extreme in the principle of tenure) means that the largest portion of the departmental budget is fixed and carries over from year to year. The budget for service staff (administrative and clerical personnel) is likewise relatively invariant. The variable part of the budget—new positions, funds for temporary hires, etc.—is competed for on a year-by-year basis. Thus, department chairs are competitive fighters while higher administrators act as referees and arbiters.

The academic department also plays a major role in shaping curricula within the university, as it is responsible for designing and teaching courses that constitute a "major" for undergraduate students who choose it, and frequently for designing "service courses" offered mainly to non-majors.

The disciplinary base of departments also permeates the non-university world, and is thereby consolidated further. All disciplines have national and regional (and sometimes state and local) professional associations. Many of those who teach and conduct research in universities are members. These associations provide an identity base, an occasion for periodic reaffirmation of disciplinary membership in annual meetings, an intellectual forum, a publication outlet through journals, a job market, and sometimes a political lobby. They also endow their members with professional prestige through prizes, honors, and election to office. National honorary societies, such as the National Academy of Sciences and the American Philosophical Society, similarly honor scientists and scholars by disciplinary category.

Other organizations, central to the life of the university, likewise run along disciplinary tracks in large measure. Some government and foundation granting programs (for example the National Science Foundation and the Guggenheim Foundation) use disciplinary categories to organize their giving. Publishers array their publications into "lists" with disciplinary emphases, partly to provide authors with publication outlets in their own fields and partly to organize their marketing for adoption in graduate and undergraduate courses offered along disciplinary and sub-disciplinary lines in universities and colleges. In a word, the disciplinary principle, like some anthropological principle of clan or moiety, insinuates itself throughout the structure of academic life.

Academic Culture

Corresponding to the structural dominance of the discipline-based department is an academic culture that is equally powerful and pervasive within the American university and college system. The core of that culture is a scientific and scholarly prestige system based on peers' judgment of contribution to the discipline's field of knowledge through scholarly research and publication in articles and books and other kinds of creative

activity. Scientists' and scholars' stature in their respective fields depends primarily on the originality, creativity, quantity, and soundness of this work. Public recognition accrues to the most successful through prizes, publicity, and acclaim. Needless to say, this culture constitutes a powerful incentive system, and professors judge their trainees in terms of their promise to attain excellence within that system. In this way, the system serves as the major device for socializing graduate students and trainees, and fosters the well-known tendency on the part of academics to clone themselves through training younger prospects.

The dominant academic value system pervades major research universities and affects other educational institutions to a lesser degree. The prestige of universities is determined in large part by the prestige of their faculty. Faculty prestige, in turn, is determined in large part by the degree to which faculty measure up to the standards of the dominant academic culture. We should remind ourselves that the excellence-in-research-and-publication culture is not the only principle in higher academic life. The academic manuals of the campuses of the University of California and most kindred institutions typically list four criteria on which their faculties are to be rewarded and advanced: originality and creativity of research, teaching, service to the profession, and service to the community. Many institutions, aware of the importance of their teaching missions and sensitive to criticism from parent funding bodies such as legislatures, have made sustained efforts to raise the importance of teaching in this mix. They have instructed review bodies to heed teaching excellence, and have instituted systems of teaching evaluation, largely in the form of student course evaluations.

In practice, however, the review processes still tend to give disproportionate weight to scientific and scholarly accomplishments and their recognition in wider circles. In addition, when lower-ranked universities, state universities, and liberal arts colleges decide to "go for it" in the system of academic competition for prestige, they almost always emulate the major research institutions by emphasizing research productivity and publication in prestige outlets, as well as tabulating the external research support their faculty can generate.

Implications for General Education

The current pervasiveness of this research-and-publication-focused culture within academic departments, coupled with their structural saliency, is central to understanding the status of general education programs in the American university and college system. Most of the effects are self-evident from the foregoing discussion. They arise from a natural tension between meeting the needs of a department for achievement in an academic discipline and serving a general education mission for undergraduates.

In summary, we find:

- Over time, universities have delegated responsibility for courses and curriculum to academic departments, producing a situation of extreme decentralization. As a result, curricular development is seldom in the portfolio of deans' responsibilities.
- Departments may be motivated to offer general "service" courses to non-majors out of a desire to swell their enrollments, but departments are rarely motivated to develop general, interdisciplinary offerings.
- Department chairs may be hard-pressed to staff their own discipline-based courses for undergraduate majors and graduate students, and may discourage their faculties from teaching outside their department.
- Faculty members are often advised—or conclude on their own—that teaching in general, and interdisciplinary programs specifically, does not weigh centrally among the criteria for career advancement in their university and in their discipline.
- Situated centrally in the budgetary process, department chairs wield more clout than leaders of and faculty participants in general education programs, which are typically funded on a temporary basis. These programs are weaker and more vulnerable in the process of in-fighting for budgetary support.

In advancing this diagnosis, we neither assume that the problems of general education are unsolvable nor do we take the next (politically naïve) step of recommending the wholesale dismantling of either the contemporary university and collegiate structure or its culture. We simply wish to acknowledge the harsh realities that discourage innovation and sustainability of general education programs and courses. We also aim to specify the parameters that have to be taken into account and accommodated in efforts to revitalize general education in the academy.

4 INTEGRATING GENERAL EDUCATION INTO THE FABRIC OF THE UNIVERSITY

One of the striking institutional innovations throughout the University of California over the past two decades has been the creation of an administrative position to oversee undergraduate education (with a title of Vice Provost, Associate Vice Provost, or Dean). These chief undergraduate education officers are responsible in different ways for general education programs (within the rubric of undergraduate education as a whole). Every UC campus, with the exception of the fledgling Merced campus, has developed such a position, and their incumbents meet periodically with one another to discuss their ideas, activities, and problems. We regard this development as a welcome response to the impulse to give greater salience to general education. That impulse arises within the University, but also emanates from the state legislature and other agencies (including the Board of Regents), which are ever cognizant of the University's obligation to provide quality undergraduate education to the young citizens of the state. States also appreciate the economic value and national prestige that accrues to them from graduate and professional programs. At the same time, however, states regard such programs—as well as the university and faculty cultures that drive them—as in tension with the undergraduate mission of universities.

As part of the Commission's work, its co-chairs conducted detailed and confidential interviews with every incumbent of these administrative positions—three of whom were Commission members—asking about the range of their responsibilities, their place in the campus administrative structure, the kinds of support they receive, and the quality of their experiences as administrators. (See appendix B.) The descriptions, conclusions, and recommendations that follow are based in significant part on the results of these interviews. We here record our appreciation for our interviewees' cooperation and candor.

The creation of these new administrative positions has been a positive development, and their incumbent administrators have been responsible for initiating and participating in much of the ferment and innovation of general education recorded in appendix A. Our interviews revealed an encouraging picture. All incumbents are admirably committed to their missions, and all reported pleasure in improving the educational lives of undergraduates. Each enumerated and took pride in specific innovations that promise to improve the quality of undergraduate life.

Within this generally positive context, we view the creation of these administrative positions as only the first in a series of steps necessary for reinvigorating general education in the University of California system. This judgment is based on what we perceive as a number of anomalies and weaknesses in the situations of these officers. At the risk of ignoring some variations and exceptions, we list these limitations as follows:

- These officers are endowed with the widest variety of titles. There is nothing inherently wrong with this dispersion of titles, as they reflect the distinctive cultures, structures, and historical initiatives of the different campuses. The dispersion, however, symbolizes a certain ambiguity of place in the established administrative structure of the University.

- The functions of these officers are as diverse as their titles. Some oversee undergraduate education in general; others focus primarily on general education programs and projects. The specific aspects of general education that each administrator oversees likewise vary significantly from campus to campus. Again, we do not notice this out of any fetish about uniformity of function. We believe, however, that this reflects the fact that such positions have been grafted onto other administrative structures traditionally responsible for the territory of undergraduate education—and general education. Much of this territory is already occupied by offices of undergraduate affairs, other central administrators, deans, and chairs.

- On a few campuses, these officers have been urged to place a high priority on innovation. At the same time, we notice a tendency for them to be assigned responsibility for routine administrative monitoring of a great diversity of ongoing or new activities. Among these are: academic advising, honors programs, writing courses, preparation for accreditation, education abroad, institutional research, summer enrichments programs, special tutoring programs, and, in one case, student discipline. All of these activities are worthy enterprises and are potential sites for innovation, but they tend to fill up the time of the officers, to crowd in on their time for other innovative activities, and to lead to the observation ventured by a few that their work is largely what others put on their desks.

- In some cases, these positions have been accorded parity with other administrators with respect to reporting arrangements, power and autonomy, and participation in the central administrative apparatus of the campus, but, in other cases, they have not. Individuals in these chief undergraduate education officer positions have been, with great variability and with some exceptions, left to work their way around the administrative system, using influence rather than delegated authority. Furthermore, their efforts are sometimes resisted by other administrators who have long regarded themselves as responsible for the educational and curricular life of the campus. While this does not always result in open conflict, our informants reported that a great deal of their time is spent on consulting, coordinating, persuading, and maintaining diplomatic relations with other interested parties.

- With few exceptions, these officers do not have flexible budgets and therefore do not have guaranteed access to a reservoir of funds to sustain innovative programs and projects from year to year. The major exception is the UCLA campus where, in 1997, Chancellor Charles Young set aside an annual sum of $2 million to grant course relief for faculty, to support cluster courses and other general-education projects, and to seed new general-education projects. UC Berkeley originally set aside a sum of $650,000 for innovation and experimentation in undergraduate education that was to be augmented annually but, in the lean budgetary years of the early 1990s, this allocation was eliminated. In most cases, support is usually authorized on a case-by-case basis and revocable on a year-by-year basis as budgets are forged.

- Budget and clout are closely correlated in the university setting, so the limited budgets these officers control often place them in a begging relationship with other administrators, budget officers, and external funding agencies. This circumstance exemplifies a long-standing problem with general education efforts. They generate enthusiasm at the beginning and persist for a while but, by virtue of the competing demands of established budgetary units and the tug of primary obligations on participating faculty, they very often lose support and fade. It is apparent that the combination of significant budgetary resources, aggressive leadership, and an atmosphere of campus support has enabled UCLA to emerge as something of a model among the campuses for innovation and sustainability in general education.

- The relationships that chief undergraduate education officers have with academic departments are limited in one important respect. Typically, department chairs are responsible for mediating matters that concern the university administration's relations with individual faculty. With notable exceptions, chief undergraduate education officers do not have line authority in which department chairs or faculty report to them. In some cases, these officers maintain steady and helpful relations with faculty, but often they negotiate with faculty on a case-by-case basis. They have few routine avenues to contact individual faculty, although here, too, there are exceptions. For instance, at UC San Diego, the chief undergraduate education officer meets regularly with the departmental "vice chairs" who oversee their department's undergraduate curriculum. It must be added that the very establishment of this new administrative position encourages faculty to turn to its incumbent with suggestions, ideas, and complaints: communication goes to the officer, not just from him or her. Still the capacity of chief undergraduate education officers to recruit faculty for education projects and programs outside the academic department structure is limited and irregular. They must rely on *ad hoc* begging for participation in educational projects as well as for moral support from interested faculty groups, with few inducements other than pleading their case.

- Academic Senate authorization for most new general educational efforts is required and exercised on the campuses but, with a couple of exceptions, the systematic tracking and overview of general educational work by the faculty does not measure up to that of academic programs of established schools, colleges, and departments.

The Commission endorses the decisions of various campuses to create and implement these chief undergraduate education officer positions (including those administrators whose focus is general education) and applauds the imaginative and difficult work carried out by many who have worked in this capacity. We are convinced, however, that these offices are still limited in their usefulness and that campuses would benefit by taking a next evolutionary step. We do not have a stock formula in mind. In fact, past experience suggests that campuses do best when they innovate within their own unique context. With this caveat in mind, we recommend the following:

- Each campus should make a major effort to assess and re-specify, definitively, the position, authority, and responsibility of its chief undergraduate education officer. This effort should emanate from the chancellor's office, and should involve other units, such as student affairs, colleges, and the Academic Senate, which are, in some ways, "in the same business" of general education, and with whom the designated chief undergraduate education officers overlap. What should emerge is a new balance of responsibility and authority for general education and educational innovation. All campuses would profit from clarification and authorization of what have been too often ill-defined and floating administrative responsibilities.

- On campuses where this has not already been done, incumbents of the redefined chief undergraduate education officer positions should be given parity in the chancellor's cabinet, thus involving them more centrally in the fabric of the campus administration. In addition, they should maintain a formal and ongoing relationship with each Academic Senate's Committee on Educational Policy.

- Each chief undergraduate education officer should be assigned a flexible pool of funds to carry out his or her responsibilities for innovation. We do not have in mind creating a new, separate academic department of general education with its own faculty that is responsible for fixed programs. We are well aware of the dangers of ossification and devolution into fixed constituencies that this pattern of funding might hold. Rather, funds should be renewed year to year but should remain as a pool for launching curricular experiments, recruiting and compensating faculty, and giving continuity to experiments and programs that prove themselves after a season of trial. General education projects that are launched should have built-in, mandatory sun-setting-or-renewal reviews after a few years.

- The interest and participation of the Academic Senate in general education should be augmented on those campuses where general education is lacking. We have in mind machinery above and beyond routine review by an Academic Senate Committee responsible for approving all courses. We hesitate to suggest a specific locus for this function for every campus. We do suggest, however, ample senate provision for approving and reviewing new programs of general education, whether initiated by the chief undergraduate education officer or by colleges and departments. The relevant senate body might also be responsible for periodic reviews of general education as a whole on campus, thus moving toward regularizing interest and reform rather than relying on periodic, one-shot committees or commissions.
- The campus should redefine where and in what ways undergraduates are advised with respect to general education requirements and opportunities. The advising roles played by undergraduate affairs, colleges and schools, and departments should be more clearly delineated. We are aware that current advising arrangements are scattered and tend to focus on what students "have to take" in order to "meet" graduation requirements. These requirements reinforce student perceptions that general education is something mandatory, undesired, and to be gotten out of the way. Improvements in the understanding and execution of advising are one element of a broader effort to strengthen general education.

All of these recommendations are aimed at improving the *structural conditions* that define the capacity of campuses to innovate in the area of general education. We regard such changes as the *sine qua non* for improvement.

We turn now to content, first addressing general curricular issues and then discussing the very important topic of preparing the young for civic engagement in a radically changed and changing world.

5 CURRICULAR INNOVATION

Early in the work of the Commission, we contacted the administrations of approximately two-dozen mostly public universities around the country, each of which has certain characteristics comparable to the University of California. We asked about their general education provisions and about recent or ongoing efforts to improve them. We make no claim for the representativeness of this sample. From the information gathered, however, there emerged several patterns which have helped to inform this Commission's work. (See appendix C.)

First, almost all of the institutions contacted revealed the common formula of specifying a number of subject areas (natural and life sciences, social sciences, humanities, and arts) from which students are required to select a certain number or combination of courses. Within each of these subject areas is typically a wide range of specific classes from which students can choose. This formula of elective breadth is often designated as the "cafeteria" approach to general education.[16]

Second, most institutions had recently undertaken or were undertaking some kind of review of general education, but most had resulted in only incremental suggestions for change. This is what might be described as the formula of tinkering.

Third, curricular innovations in general education revealed a concentration on a discrete number of themes:

- An emphasis on *interdisciplinary* offerings, though the specific manifestations varied widely.
- A widespread effort to keep up with major *changes and problems in the larger society*, manifested, for example, in courses on social and cultural diversity, globalization and internationalization, environmentalism, terrorism, and moral and political dilemmas in contemporary democratic society.
- Courses emphasizing advanced *literacy*—for example, computer skills, quantitative reasoning and skills, and writing.
- Courses designed to cultivate *analytical and critical thinking.*

These "results" were not surprising, and we dare to think that a fully comprehensive survey would reveal similar responses. We were struck with the relatively modest scope of changes and with the fact that so few of them took into account the structural realities

of university life (administrative, faculty, budgetary) to which we give special attention in this report. Attention to such changes is a fundamental precondition for enduring reform of general education programs.

With respect to the third item—curricular innovation—the Commission concludes that, on the whole, the impulse to innovate is strong and that universities are doing a commendable job of responding to real and emerging changes in the larger society and world. All of these emphases seem consistent with the diverse goals of general education. We also conclude that if we were to try to generate a general list of timely topics to be given curricular emphasis, we would do no better than the cumulative efforts we observe. In fact, there may be some mischief in attempting to produce uniform general formulas, given the different institutional conditions and regional variations that characterize American institutions of higher education. (The partial exception to this conclusion is in the area of civic engagement, which we address in the next section.)

In place of such an exercise, we will address additional issues connected with curricular offerings in general education: (1) required courses and programs, and (2) the avenues through which general education is delivered. In this section, we address forms of and settings for instruction; subsequently we will raise two additional issues—transfer students and educational technologies.

Requirements vs. Alternatives

We begin by identifying a widespread tension in general education—between no choice on one side, and maximum choice on the other. The former is represented in the University of Chicago's mandatory core courses, all of them extra-departmental; the Contemporary Civilization (locally know as "CC") courses at Columbia; the former American History and Institutions requirement at the University of California (which, at one time, consisted of one specific course in American History and one in Political Science); the current required freshman core course, "The World at Home," at UC Merced; the one- or two-year-long core sequences in four of the undergraduate colleges at UC San Diego; an upper-division counterpart at the new UC Merced campus; and freshman writing courses in many places.

In most American higher education institutions, however, the days of specific course requirements or sequences of courses for *all* undergraduate students on a campus appear to have passed. Almost everywhere, the cafeteria principle governs. At UC Berkeley, the number of courses that would satisfy the former American History and Institutions requirement grew to almost 90 by the 1980s when it was abandoned. The undergraduate requirement in American Cultures, which embodied the principles of diversity and multiculturalism, was enacted several years later. Currently, taking one of approximately 50 courses can fulfill that requirement at UC Berkeley. Many campuses have no such

specific requirements and rely on the cafeteria principle alone, specifying three or four major subject areas within which courses must be taken. In its famous "no requirements" approach, Brown University carried the cafeteria principle to its extreme.

Several forces appear to have contributed to this general tendency away from specific and universal requirements: (1) the sheer "massification" of university education, which makes offering the same course—much less the same sequence—to every student a logistical nightmare, unless it is broken into small sections, as in the case of required courses in writing. The freshman-junior core requirement of the new, small campus of UC Merced may prove sustainable, but it will certainly face pressures to evolve away from that pattern as the campus grows; (2) a long-term development of value emphasis on individual student choice; and (3) political and ideological disagreements on what, if any, curricular content should be imposed on everyone.

A cynic might describe this tension between requirements and alternatives (also structure vs. lack of structure and freedom vs. constraint) as a struggle between a principle of political impossibility on the one hand and a principle of institutional cowardice on the other. American higher education appears to have evolved into a mix of diverse—and politically conscious—cultural constituencies with the result that efforts to impose specific, binding requirements on all students typically end in bitter conflict, paralysis, or watery compromises. Under these circumstances, the "cafeteria" style is an easy path because it requires the minimum from students (and ennobles the principle of free choice), and it does not require faculty to do anything different from offering the kinds of discipline-based courses they prefer. It is perhaps not too much to say that the "institutional cowardice" end of the continuum has won out in the long run, favored as it is by students and faculties, and preferred by administrators weary of chronic conflict and institutional headaches.

The Commission cannot pretend to resolve this endemic tension, and acknowledges that it is impossible to turn the clock back to past visions of uniformity. We do envision, however, one creative way of working within the contemporary landscape to the benefit of undergraduates. What we have in mind is further developing and publicizing *structured* and *interdisciplinary* instructional collections or packages of courses around timely issues such as environmental sustainability, technology and society, bureaucracy and society, military and society, and political and ethical dimensions of biological knowledge. Course packages might consist of a specified number of courses and include special ingredients, such as a term of original themed research. These bundles of courses could be named, formally recognized as something like "thematic" minors, and listed on students' academic transcripts. As it is, many students seek official recognition for their classroom work and currently they receive that recognition mainly in their identification with a major. That they normally have no way to be recognized for their work in general education courses reinforces the subordinate place of general education

in their overall college program. If a general education bundle could be acknowledged as worthy of official recognition on a transcript**,** this could enhance the role of general education on campus.

These curricular bundles would organize general education more like a *prix fixe* dinner menu rather than an *a la carte* or cafeteria array.[17] Students would be free to choose a specific collection of courses, but, once chosen, its curricular ingredients would become self-imposed requirements. Some campuses are already experimenting with variations of this principle. We encourage its development as a way of guiding interested students into in-depth and timely interdisciplinary experiences that are clearly consistent with the aims of general education. These course packages could provide students both recognition and coherence for their general education choices and could also lead to new relationships among faculty. The faculty who teach different courses that are part of the same bundle of courses would not become members of a quasi-department governing these collections, but could, nonetheless, develop a loose inter-departmental intellectual colleagueship.

The Commission also encourages all campuses to pursue a policy of aggressive development of a number of curricular arrangements that have accumulated or been proposed in recent decades, all of which enrich undergraduates' educational experiences and further the aims of general education. We have in mind the following kinds of on-going and potential pedagogical innovations:

- Orient freshman and sophomore seminars toward timely and problem-oriented topics. The growth of freshman and sophomore seminars in the UC system over the past fifteen years has been a remarkable institutional accomplishment in a public system. Such seminars have developed on almost all the campuses and now appear to be in the life-blood of the University. They have, however, evolved according to a cafeteria-like principle. In general, the principle of faculty volunteerism has reigned, with faculty free to determine themes and often choosing specialized topics in their own research. One way to bring freshman-sophomore seminars closer to the purposes of general education would be to encourage faculty to select as seminar topics contemporary social problems and policy issues that lie in their own areas of expertise. Another way to link freshman-sophomore seminars more closely to the purposes of general education would be to provide incentives to faculty who offer seminars aligned with a particular general education cluster or package.

- Develop capstone courses on the frontiers of knowledge for relevant departments and clusters of departments. This is one path toward enriching upper-division general education.

- Induce departments—or better, clusters of departments—to shape existing courses and create new ones in the interest of applying knowledge to ethical, moral, and political issues. These courses would involve a stretch beyond existing "service" courses, which are designed primarily to make specialized fields of knowledge available to non-majors.
- Develop more possibilities for involving undergraduates in research activities in academic, laboratory, and "field" settings. Research involvement has proven to be a very potent educational device, and, as a side benefit, it involves faculty, graduate students, and undergraduates in a collective enterprise. In the following section, we indicate the special importance of these activities for civic engagement.
- Continue efforts to improve and evaluate instruction and teaching methods on the part of regular faculty, temporary faculty, and graduate teaching assistants. The benefits of this effort include, but are not limited to, general education.

The above-mentioned enterprises overlap with one another, but there is no reason why campuses should not pursue multiple paths to maximizing the availability and value of general education offerings. In fact, a multi-sided attack seems the most rational strategy if we acknowledge that richness—rather than requirements—will continue to be the dominant motif of universities' efforts to revitalize general education.

6 THINKING THROUGH THE CIVIC DIMENSION

Colleges have long been expected and intended to serve broad social needs. Harvard College was founded in order to train the clergy so that the colonists, astray in a land far from the civilization they had known, would reproduce religious leaders to serve their welfare. Thomas Jefferson founded the University of Virginia with the intention that it would "develop the reasoning faculties of our youth, enlarge their minds, cultivate their morals, and instill into them the precepts of virtue and order." The task of the university in general was to instill what Jefferson called "habits of reflection and correct action"—in particular, because it was designed to educate what Jefferson called "the natural aristocracy," drawn from all classes, to fill the professional class and political leadership of the nation.

That being noted, specific curricular measures to enhance civic education—measures that stress citizenship more than leadership, unlike the class-bound ideals of the early colleges—emerged prominently only in the 20th century. Survey courses in "Western Civ" began during and after World War I as "War Aims" courses, designed to let young men know what they might be fighting for one day. Many colleges and universities today have requirements in American history—although this is less common than it was in the past. All UC campuses have an "American History and Institutions" requirement, but most students satisfy it by showing that they have passed courses in American history and government in high school. Many institutions also have more recently created a required course or courses on "diversity," emphasizing either the history and sociology of diverse cultural groups in the United States or the human-relations side of learning to get along with people who have different cultures and beliefs.

Contemporary Interest in Civic Education

The past two decades have seen a movement for civic education at the college level, driven by a sense that the United States is on a downhill slide away from good citizenship. Despite anxiety in the 1950s about the "silent generation" of students, worries in the 1980s about the "me" generation, and contemporary concerns about low voter turnout among young people, there remain doubts about the severity, the meaning, or even the fact of civic decline. The leading study of what Americans know of U.S. history and politics demonstrates no change at all between 1945 and 1989.[18]

At the same time, data suggest that there has been a measurable decline in voter turnout since the 1960s, though this decline is more moderate than is normally recognized.[19] Most of this decline took place in the fateful period between 1964 and 1976. In the succeeding 30 years, overall voter turnout has slipped only slightly, and inconsistently. At the same time, young people—who are indeed voting less, reading newspapers less, and following current affairs less than young cohorts in the recent past—may be engaged in a more active politics of everyday life than was once true. That is, students are making consequential political and personal decisions daily—and the line between political and personal is difficult to define—to use drugs or not to use drugs, to acknowledge publicly one's sexual orientation or not, to recycle or not to recycle, to drive a gas guzzler or a hybrid, to be vegetarian or not, to reach out across ethnic groups for friendship or not. Today, every one of these decisions is a politicized choice which has become more individualized.

This shift is most visible in discussions of adapting the curriculum to a world growing both more diverse and changing in politically consequential ways for which students are not prepared. Some educators call for a revitalized emphasis on foreign language study and, when possible, education abroad. They may also argue that today's world requires a more sophisticated knowledge of digital media, and how these media are both liberating and impose constraints and limitations that are rarely visible to the naïve user.

The worry that we are not preparing our students for civic life in a rapidly changing world also emerges from changes in the democratic process. Fewer and fewer institutions, from the United States Congress to the American university, are governed by a hierarchical leadership free to operate largely beyond the public view. In institutions in which students are involved, from colleges to churches, and into which they will be moving, from families to corporations, norms of open and democratic decision-making, in which all stakeholders have a say, have spread. There are increasing domains of life that call on individuals to decide matters for themselves.

All of these changes make broad civic goals more important than ever in higher education. At the same time, no other dimension of liberal education seems so far from consensus on classroom practices or leaves the faculty so uncertain about their own competence to instruct, or even to conceptualize, ways and means.

Civic education, in sum, has become a more complex idea over time, just as the world in which students are to participate has become more difficult to grasp. Higher education addresses these matters only at some peril, because different concepts of civic duty may divide people along partisan political lines. This does not mean that colleges can or should abandon civic education as an objective. It does suggest that civic education is a set of related objectives, rather than one general goal. We recognize four aspects of civic education to which colleges and universities can direct their efforts.

Four Goals of Civic Education

Civic Information. Faculty members would like to think that their students are sent off into the wider world knowing something about American history and politics and current affairs, enough to be able to read a newspaper or to vote with some appreciation for what might be at stake in an election. Simply "being informed" is a very important civic goal and the one that requirements in history, diversity, global issues, and non-Western cultures are designed to meet.

Civic "Search" Skills. In the past, research literature in political science has suggested that it is costly for citizens to acquire the knowledge they need to discern their interests and make considered choices at the voting booth. In this view, casting a well-informed vote is "irrational" because the cost of seeking out relevant information is greater than the benefit to the individual that his or her single vote is likely to affect. Today, in contrast, searching for information is much less costly to individuals. In fact, the problem is not one of searching for scarce information but of information "overload." Even very conscientious voters adopt informational shortcuts, trusting in the advice of a friend or acquaintance, the counsel of an interest group, or simply the general information that a candidate's party affiliation signals. Mastering informational abundance sometimes points to the benefits of new technologies, but it is unlikely that technological innovation can substitute for strengthening citizens' own capacities and habits as users of information. Citizens need skills and inclination that include a taste for wide reading and exposure to information; a drive or hunger toward a search beyond the first, superficial answer; a penchant for trying to understand opponents and figuring out how to address them on their own grounds; and a capacity to defer closure until some attempt has been made to weigh or balance multiple views. These motivations and capacities distinguish consumers, citizens, and students who are better able to protect themselves against the manipulations of advertisers, the spin of political candidates, and, for that matter, the political bias of professors. Such capacities distinguish employees who are able to work well in teams and to represent a company to a wide range of outside audiences. They also prepare individuals for leadership as citizens or as managers—and, of course, they are just the capacities that liberal arts education has traditionally sought to foster.

Civic education, then, should be oriented not only to information acquisition but also to the acquisition of skills and dispositions to enable life-long searching, sorting, and evaluation of information, as well as skill at turning information into an articulate argument in speaking and writing.

Appreciation of Democratic Values. A third objective relies on information but cannot be satisfied by information alone. It is a matter of learning to appreciate widely shared values and ideals of American civic life. This is, of course, difficult territory for teachers who are dedicated to helping students think for themselves. It suggests encouraging students to value civic participation, free expression, representative institutions, equality before the law, and due process. Should censorship, autocratic and arbitrary government,

and inequality get equal time? There is room for debate on these matters, to be sure, and the specifics of what counts as civic participation, legitimate public expression, and equality before the law are subject to recurrent debate and redefinition. Still, it would be a very rare instructor who does not situate himself or herself inside a broadly shared American consensus that these are values cherished in our society and that a purpose of civic education is to deepen students' appreciation of their worth and their fragility.

Civic Experience. A fourth objective recognizes that there is, for both students and citizens, a gap between "being informed" and "acting as a citizen in the wider world." There are limits to what academic instruction can achieve in the classroom if students do not reinforce academic instruction with the lessons of lived experience. Some evidence shows a civic benefit when students are encouraged to broaden civic participation through volunteer work or through service-learning courses—in which they do part of their coursework in community settings from scientific laboratories to soup kitchens—and reflect on their experiences in these settings. Students who participate in volunteer work in college are more likely to develop leadership skills and to believe that individuals can make a difference in changing society.[20] Studies of students in service-learning courses frequently discover civic benefits in this kind of coursework, even when students have been randomly assigned to service-learning and non-service-learning sections of a large course.[21]

On the other hand, there is evidence that community service in high schools and colleges may lead students to see volunteer work as an alternative to politics, valuable precisely because it is not complicated or sullied by considerations of power and politics. As political scientist Gregory Markus writes, too many students believe that "politics is unsavory, politicians hopeless, and petitioning the government a waste of time."[22] To the extent that civic education fosters the image that society is best seen as disconnected from politics, however, it hollows out the notion of citizenship and weakens the skills and outlooks students will need to act effectively as democratic citizens. We believe that community service, whether governed by Student Affairs or as part of service-learning courses in the curriculum, should include not only conventional non-profit "service" activities in hospitals, shelters, and social service agencies, but also service to political parties, lobbyists, advocacy groups, government agencies, and elected officials.

Civic Education: Conclusions

How should we think of the relationship among the four goals of civic education? These four objectives—the transmission of civically relevant information; education in "learning how to learn;" cultivation of an understanding and appreciation of democratic politics; and guided, structured opportunities to link civic education in the classroom with supervised service work beyond the campus—all merit support. They do not necessarily co-exist in easy harmony, however. Faculty who point to the importance of "learning how to learn" legitimately observe that this is very much what a traditional classroom education in

liberal studies is supposed to provide. They sometimes add that this is precisely what universities are well equipped to do, while few faculty have the time, the training, or the first-hand experience to guide students effectively in experiential, service-learning, or community-based courses. They also suggest that experiential education in civics, while a legitimate objective for colleges, must be largely accounted for in extra-curricular rather than curricular instruction. Among the professional educators in Student Affairs at every college and university, there are many people in education, counseling, or related fields who do "leadership training," who advise and help to organize student groups in areas as diverse as fraternities and sororities, intramural athletics, and student publications. They teach yoga, karate, swimming, and self-defense classes. They set up language tables and volunteer opportunities, after-hours educational enrichment programs, and many other activities.

Still, the past two decades have seen the growth of a vigorous movement to get the academic side of the university more engaged in students' civic learning and to insist on partnerships between colleges and off-campus non-profit organizations. The national organization, Campus Compact, reports that more and more of its 400 member campuses maintain a service-learning office to support courses for an increasing numbers of faculty and students.

In 2005, *Washington Monthly* began an annual rating of colleges according to what they provide society. The magazine determined that colleges improve society when they (1) engender social mobility—measured by percentages of students with Pell grants enrolled and graduating, (2) produce "academic minds and scientific research," and (3) encourage students in an "ethic of service"—measured by the percentage of federal work-study grants focused on community service and by student enrollment in ROTC and the Peace Corps. By these measures, public universities do much better than the private institutions that dominate the famous *U.S. News & World Report* rankings of "the best" colleges. In the *Washington Monthly* list, seven of the top ten universities are public institutions (including four University of California campuses).[23]

Research universities have obvious strengths in research capability, but these are not fully exploited in the service of undergraduate education. Harnessing the research skills of university faculty to improve the variety of service-learning programs that are proliferating in higher education is an area that deserves much greater attention. Service-learning or experiential learning programs at leading colleges and universities invariably require not just many hours of volunteer service but a "classroom component" in which students engage in relevant reading, critical discussion, and reflective papers on their field experience. They become not only volunteers but also field workers and anthropologists of their own societies. Supervising this activity and critically evaluating the papers or other projects the students prepare is a time-intensive teaching activity but one that can exploit the best of a research faculty.[24]

7 TRANSFER OF CREDITS AND TRANSFER STUDENTS

University of California undergraduates increasingly fulfill their general education requirements outside of the UC system rather than on the UC campuses themselves. This happens because many students (1) gain credit for general education courses through the advanced placement system of courses and examinations [both the Educational Testing Service-run Advanced Placement (AP) system and the International Baccalaureate (IB) system], and (2) gain credit for general education courses taken at community colleges and other universities before they transfer to UC to complete the baccalaureate or, in the case of community colleges, while they are students at UC campuses. Generally positive in impact, these practices nonetheless raise new issues concerning the nature and quality of collegiate general education.

Advanced Placement

Advanced Placement is a system of courses and examinations that allows high school students to study college-level materials prior to coming to the University. The AP and IB systems, as used within the University of California, are significant in several ways. For admission purposes, the grades for AP, IB, and other approved honors-level courses are weighted differently from other courses and, as a result, good class performance in such courses can lead to stronger admission credentials. For our purposes, however, the features of the advanced placement systems of interest are those that award students course credit and placements as a consequence of scoring well on tests that are given to validate their levels of achievement. Again within the UC system, all students who score above certain cut-off points on the validating tests are awarded course credits that can be used toward graduation and most campuses then place students into appropriate-level courses. Thus:

- AP and IB credits typically waive courses taken at the lower-division level and these courses are often general education courses.
- AP and IB credits can afford greater flexibility for students in designing their curricula once they enroll in college.

- AP and IB courses have become important ingredients in the curricula of both private and public high schools, especially those that are motivated to place large proportions of their graduates into college. One should expect that students presenting substantial numbers of advance placement credits will be a continuing feature of undergraduate education.

We do not possess data on the precise number of AP and IB credits that undergraduates bring to college in their freshman year, but the general trend is that the number is large and continues to increase. Typically, substantial numbers of students enter with sophomore standing or attain that level mid-way through their freshman year. The Commission believes that the high level of accumulation of pre-college credits calls for two lines of augmented activity on the part of the campuses.

First, faculty who are involved with general education should take an active role in assessing the content and level of advanced placement courses and examinations to assure that, if general education courses are waived as a consequence of the advanced placement process, prior learning reflects the goals of the general education mission. Furthermore, faculty should understand that the decision to waive general education requirements as a result of advanced placement credit is an option, but there is nothing in the logic or rules of advanced placement that requires the waiving of general education requirements.

Second, UC campuses should be more actively engaged in making their own upper divisions the scene of increased activity in general education. Persistent attention to general education over the undergraduate career—in contrast to getting requirements out of the way early—is a value in itself. For instance, each of the general education bundles might require one upper-division "capstone" course to be taken in the student's senior year. These could be interdisciplinary courses especially designed for very popular bundles, or they could be departmental courses approved as "capstones" for bundles that attract fewer students. Moreover, the upper-division years are those in which the university campuses have all the students who will graduate from their campuses on campus and can, by virtue of this fact, have a more direct and guaranteed impact on their educational fortunes.

Transfer Students

The signature feature of California's 1960 Master Plan for Higher Education is the principle of differentiation of functions. Each of the three public segments—universities, state universities, and community colleges—is assigned a distinctive package of academic programs and degree-granting privileges. The community colleges typically offer two-year associate degrees, California State University (CSU) campuses confer bachelors and an array of masters degrees, and the University of California (UC) offers bachelors, masters, and doctoral degrees (joint doctoral programs between UC and CSU campuses are also in place). The University of California has a mandate to provide professional training in law, medicine, and veterinary medicine, and enhanced responsibility for research.

Differentiation of function has two corollaries: differential admissions and transfer. UC campuses are authorized to admit the top 12.5% of the state's high school graduates, CSU campuses the top 33%, and community colleges are designated as open-admission institutions for California residents with (and in some cases without) high school diplomas. The transfer function provides for community college students to transfer to the other two segments if, in all cases, their academic records justify it.

Taken together, the three principles of differential function, differential admissions, and transfer constitute an institutional compromise that urges the system as a whole to strive simultaneously for competitive excellence and open opportunity. The principles have shown a remarkable stability for almost a half-century, persisting through several state reviews and despite a number of episodes of intersegmental rivalry.

The Commission calls particular attention to the transfer function and its implications for general education. Transfer is an important counter-balance to the differentiation of functions, for it permits those who begin their college experiences in one of the non-University segments to move to the University (usually after two years) and to gain a full degree there. As such, it articulates productively with California's democratic and egalitarian traditions, and, in recent decades, has proved a meaningful ingredient in the state's efforts to provide all students an additional avenue to attain degrees in segments of California's system where they could not begin their higher education.

The rate of transfers has fluctuated over time, but has shown an overall pattern of growth. If we add these transfer data to a number of other significant numbers in higher education—numbers of dropouts and stop-outs, frequency of dropping courses without punishment, use made of summer school, moving from college to college several times in a student career ("swirling")—we clearly have to revise our notion that the college career is an orderly sequence of four years in the same institution.[25] This fundamental fact further dictates that colleges and universities must look to student experiences in institutions *other than their own* in assessing the collegiate experiences of their students.

Over time, the University of California's Office of the President has improved the situation of transfer students in several respects:

- It provides systematic information (in an online publication called ASSIST) on how course credits earned at one segment of California public higher education can be transferred to other institutions. The current challenge is to make this system more widely known to potential transfers.

- There has been a steady climb in completion rates with respect to the Intersegmental General Education Transfer Curriculum (IGETC)—a series of courses offered by the community colleges that satisfy the lower division breadth and general education requirements for the University of California and the California State University system.
- Efforts have been made to help students understand the similarities and differences between similarly named majors (for example, psychology) at the community college level and at the University of California and California State University levels.
- A recent report from the Legislative Analyst's Office[26] calls for a standardized set of courses in any community college that could be transferred to the University of California. This suggestion is under study by the Office of the President but has not yet been put in place.

As citizens of the University of California community, we encourage all of the ongoing efforts to facilitate the transfer process and ease transition to university-student status. The contractual relations between the University of California and the other segments should continue to be honored and extended when feasible.

Special Issues

The expanding transfer function and the changing ratios between upper-division and lower-division students have highlighted two problem areas that are similar but not identical to those associated with Advanced Placement.

The first has to do with the "fit" between lists of core general education courses taken in the other segments of higher education and special general education requirements of individual UC campuses. If general education is mainly a matter of breadth of coverage of subject areas, few matching problems arise between these segments. Some campuses, however, have devised general education sequences that are difficult to replicate in satisfactory form in the other segments. We have in mind, for example, the different thematic emphases selected by the different colleges at UC San Diego, and the core course required of all freshman students at UC Merced.

One solution to this problem would be to require incoming transfer students, even those who have taken the "core" general education requirements in other segments, to complete the distinctive campus lower-division experiences after transfer. We do not recommend this solution, because it would constitute an obstacle to transfer and occasion delays in progress through the remaining collegiate years. As a matter of principle, particular campus programs should not trump the principle of educational access. Instead, campuses should turn to more active involvement in general education courses and programs at the upper division level, where the distinctive stamp of the campus would reach all. Campuses could also devise briefer versions of their distinctive core

courses specifically designed for transfer students. Thurgood Marshall College at UC San Diego, for instance, offers for transfers a one-quarter version of its three-quarter core course entitled "Diversity, Justice, and Imagination."

The second issue concerns the nature and quality of general education offerings in the community colleges and state university systems. As more students come to meet their GE requirements in these segments, this problem becomes more salient. As a special commission on the status of general education, we ask that the University of California take a more cooperative interest in intersegmental discussions on the *content, significance, and quality* of general education courses offered in the other segments, and in how these articulate with the general education arrangements on the various University campuses. When students transfer, the interest has been primarily administrative—in what year will they be placed, how many university units of credit they will be offered, what past courses "count" toward general education requirements and the major—in a word, a series of translations to make transfers into "regular" UC students.

This concentration on procedures has inadvertently come to constitute a situation of selective inattention to the overall quality of the collegiate experience for this important minority of transfer students. We recommend that the University of California take special initiative in the general education of those students who transfer to their campuses. This initiative could take several forms:

- More active involvement of University admissions/transfer offices with relevant counselors and academic administrators, keeping them updated on the content and justifications of curricular and program developments in general education on their own campuses. In some cases, it makes sense for UC counselors to hold office hours at community colleges.

- Program and curricular cooperation of University administrators and faculty with parallel officers and bodies within the state university and community college systems. This could be a collective effort involving the Office of the President and the systemwide Academic Senate. It would no doubt be more advisable, however, to situate this kind of cooperation at the campus levels, given the diversity of general education programs across the system. These cooperative efforts might include advisory reviews of programs and courses of all three segments, with an eye to assuring better continuity and articulation. Normally, efforts to ease the transition to UC life have been located in Student Affairs. Academic Affairs should become more involved. Some campuses, such as UC Irvine and UC San Diego, have recently introduced "transfer seminars," one-unit courses modeled after freshman seminars but designed exclusively for transfer students.

The kind of initiative we envision would be beneficial in two ways. First, it would attend to a category of student citizens whose academic fate has tended to suffer from neglect. Second, it would establish even more positive cooperative ties among the several higher

education segments, which, historically, have tended either to go their independent ways or compete with one another. It is our belief that improved communication and partnership between California's community colleges, state universities, and University of California campuses can only improve the general education of both transfer and non-transfer students in all segments of the system.

8 NEW TECHNOLOGIES AND GENERAL EDUCATION

The applications of information and communication technologies (ICTs) in higher education are many. They increase efficiency in administrative processes such as admitting students, managing classroom space, and evaluating faculty. They also provide infrastructure (for example, universal e-mail systems and digital libraries) for the educational process. Finally, they promise to change the face of teaching and learning. We concentrate on the last set of potentialities because they link directly, but not exclusively, to issues of general education. In the teaching and learning realm specifically, ICTs are cited as potentially effective tools for (a) improving academic quality through collaborative and "student-centered" learning, (b) containing or reducing costs of undergraduate instruction, especially in high enrollment general education courses, and (c) providing access to an increasingly diverse college applicant pool. We will focus on these three aspects insofar as they have the potential to affect general education.

Quality

Two faulty assumptions often confuse discussions of technology in undergraduate education: 1) educational technology equals online and distance education, and 2) the technologies themselves are monolithic and static in their qualities and potential. Regarding the first, most public universities use ICTs in "hybrid" environments, where ICTs both complement and facilitate face-to-face and "one-to-many" interactions in large introductory lecture courses. The ratio of online components to face-to-face interactions can vary from course to course, as well as between types of institution, with only a few traditional four-year institutions currently offering large numbers of courses entirely online.

Regarding the second assumption, ICTs combine production and delivery technologies with interactive communication technologies. They also include rapidly evolving hardware and software systems that can be combined in an almost infinite number of ways. Each modality has particular characteristics that contribute to its relative strength or weakness as a tool for traditional teaching/learning methods. These tools may be paired with particular pedagogical goals such as literacy (including quantitative, information seeking, computational, and writing literacy), analytical and critical thinking, and internationalization. Their promise includes increased and easier interaction (e.g., synchronous and asynchronous collaborations between students and teachers, seamless

communication with dispersed peoples and places), visualization of complex structures and processes, and unprecedented access to primary source and secondary study materials, data sets, and media from around the world.

There are as many examples of creative use of ICTs in general education as there are faculty who have the time and inclination to experiment with their potential. General education courses urge upon students both a global perspective and a historical perspective on whatever is under study. The Internet makes this more and more available to every classroom and every student and teacher with access to adequate bandwidth. Students studying contemporary affairs can get perspectives on the topic at hand with ease from the BBC, *The Guardian,* or *Al-Jazeera*. Students of history can view original sources from their laptops and gain access to materials once available only at the largest research libraries or specialized archives. Students working on topics in the arts and languages can download myriad audio and visual materials and, of course, teachers can do the same for classroom presentation. In the sciences, simulations and animations can make difficult-to-visualize processes immediately comprehensible.

Assessing, not accessing, however, is at the heart of the critical intelligence that general education seeks to develop. Student facility with using new tools does not translate automatically to sophistication in navigating the online world for the substantive research needed in term papers and seminar discussions. The propensity of students to avoid the library and to cull most resources from the Web contributes to the perception that, although they are savvy about navigating online environments, they are less adept at discriminating quality. "Information literacy" is cited by many faculty and librarians as a skill that students desperately need (and perhaps, ironically, there are online tutorials available to teach these skills to undergraduates). Moreover, many faculty might suggest that perhaps the biggest challenge posed by ICTs is that they can limit the ability to think linearly and to concentrate long enough to construct a well-reasoned argument.

The Internet also permits easier plagiarism and cheating on exams at the same time it affords faculty with new resources for detecting cheating. While faculty may be trying to use new technology to teach classes more effectively, students in the classroom may be dodging their efforts by using laptops and handheld electronic devices to surf the Web, check email, text message their friends, order lunch, or play poker.

The new technologies and the attitudes of the younger generation who use them (often referred to as "digital natives") will afford not only new opportunities but also new challenges for general education and the generation of faculty who teach undergraduates. College students are heavy users of peer-to-peer file swapping, Google searches, "mash-ups," wireless instant messaging (IMing), and entirely new technologies and uses that are emerging at a rapid pace. Given choices about course modality, many students will gladly choose an online video lecture component, on grounds of convenience, as either a backup or a substitute for attending lectures. Students may actually prefer doing lab preparatory

work and taking quizzes online, and emailing their professors 24/7 rather than attending office hours. Their social interactions with peers and faculty are increasingly mediated through mobile technologies, and what was once assumed to be private interaction may become public (e.g., emails and blogs as confessionals). Despite a spate of experiments taking place in the schools and in higher education, it is simply too soon to assess how the willingness and interest of youth in creating digital content through blogs such as Facebook and MySpace, remixing audio and video, and spending hours engaged with virtual worlds and games, might influence the design of future undergraduate educational environments. We can predict with some assurance, however, that some of these technologies will be integrated into general education pedagogy over time.

Reducing Costs

Many large public universities are experimenting with technology to save money in delivering high-enrollment general education courses.[27] Some argue that in large lecture courses such as chemistry, history, and economics, substantial cost savings can be generated by substituting capital for labor. Course redesign projects focus on rejiggering course creation and delivery mechanisms so as to decrease duplicative teaching staff costs. Investments are made in well-designed "courseware" intended to both engage students and allow self-paced learning with prompt feedback. There is no doubt that these technologies have the potential to enable the creative reuse of space and time without resulting in a concomitant degradation of educational outcomes. Although some successes have been reported, one of the stumbling blocks to reducing costs through economies of scale is the difficulty of getting other faculty (either inside or outside of the institution) to use materials developed by someone else. It may be a model that can work only in public research institutions where the teaching of many large lecture courses has been assigned to adjuncts.[28]

Widening Access

Modular learning materials and whole courses developed by faculty at many public universities can easily be located through Google-type searches or through specialized portals. These materials are developed by faculty innovators and often serve both an institution's own students and Web surfers from around the world.[29] The ubiquity of the Internet and the increasing availability of college courses nationwide have resulted in a growing tendency for students in the U.S. to meet various remedial or general education requirements through online courses, a phenomenon often referred to as "online swirling." These courses might be offered by a student's own institution or by others and include courses in information literacy, remedial math, and statistics. The danger, of course, is that the core of general education may be relegated to online courses that have to be "gotten out of the way." As noted in the section on transfer students, this trend may force institutions to look to student experiences in institutions other than their own and to set up mechanisms for better curricular cooperation to assure quality of courses.

We also take note of the explosion of "virtual high schools" that provide Advanced Placement courses to urban and rural high school students (and the home-schooled population, which has been a large driver of virtual high schools).[30] Such course offerings may not only increase college readiness among high school students but may also provide models for enhancing community college curricula to increase the rate of student transfer from two-year "open door" colleges into universities. Georgia, Illinois, Massachusetts, Maryland, and Michigan are among the states that have led the movement to utilize online courses to increase college preparedness or fill in general education requirements.[31] A number of experiments have been discussed at the University of California, but rules regarding transfer of credit among sectors and the difficulty in recruiting faculty to engage in these novel forms of teaching may present obstacles to their realization. Unique technology partnerships among community colleges, the California State University (CSU) system, and UC campuses were embodied in the development of the new UC campus at Merced. It is too early to discern what role ICTs will play in this effort to ease transitions between the sectors.

Conclusions on ICTs and General Education

Information and communication technologies will become increasingly relevant to discussions of general education because of their pervasive role in our everyday lives—we need to sift critically through more and more information from a growing number of questionable sources. As citizens, we need more sophisticated knowledge of other cultures as the international flow of ideas, capital, goods, and people continues to increase.

With respect to amplifying general education improvements and innovations (e.g., breadth, civic engagement, knowledge of other cultures and societies, development of interdisciplinary knowledge, critical thinking), the case for the use of ICTs is mixed. ICTs supply a combination of (a) opportunities for improving general education, (b) neutral features (with no special relevance to general education goals), and (c) possibly negative implications.

We suggest several ways to integrate ICTs effectively into general education:

- Support faculty innovation in redesigning large lecture courses to take advantage of tools that can allow more creative use of faculty and student time.
- Train students in the disciplined use of information resources.
- Provide adequate technical infrastructure in the classroom and other teaching/learning environments.

- Provide servers and other technologies that allow faculty to digitize and store their own teaching resources (e.g., digitized images, text, video, and audio). This may be particularly crucial in the humanities and "soft" social sciences where budgets are too small to permit conversion of analog materials to digital format.
- Develop mechanisms for assessing and ensuring the quality of online general education courses.

9 ENCOURAGING A CULTURE THAT SUPPORTS GENERAL EDUCATION

General education arose early in the 20th century as a protest against and remedy to the diversification and specialization of college curricula. Its proponents sought to revitalize the generalist perspective in light of this increasing trend toward specialization and elective choice for students and tried to instill in students values and skills beyond simply enhancing their earning potentials or career prospects. The idea quickly gained traction. Yet, despite all the efforts devoted to the liberal ideal of general education, and despite decades of eloquent testimony to its values, the ideal still faces an uphill battle.

Most students come to college with little comprehension of what a general education is, or why it might be valuable. Most expect college to advance them vocationally, but fewer anticipate that college can help them develop culturally, morally, or politically. In this context, it should come as no surprise that many students do not really "get the point" of general education requirements; these seem to be an extension of high school and students want to get them "out of the way." It is not clear that anything can change this outlook dramatically. What *is* certain is that nothing will change if there is no mobilization among relevant campus constituencies.

It is possible to build a campus culture that is more supportive of general education. In the text that follows, however, we offer no silver bullets. Our emphasis throughout has been on formidable structural obstacles to general education. We have in mind, rather, the imagery of clawing at a granite boulder in the hope of gaining a finger-hold here and there, in the hope that, cumulatively, multiple efforts will make a difference.

Faculty

Faculty do not generally reap material rewards for teaching general education courses, although this varies according to the cultures and economics of particular universities. Some departments—typically in the humanities—do not attract high enrollments in their departmental courses and do not have large numbers of majors. These departments thus have a clear incentive to teach high-enrollment general education courses. Faculty positions are, to a significant extent, allocated according to the size of a department's enrollments. Departments define and redefine themselves collectively as they come together to hire new faculty. In addition, they typically measure their local success by growth in the number of their faculty positions. Larger departments do not necessarily offer better work environments than their smaller counterparts, but larger departments

typically have higher morale. This logic leads low-enrollment departments to find rewards in teaching general education courses. Yet, even in these departments, the collective benefit of general education enrollments does not necessarily translate into individual benefits for a particular faculty member who might prefer to teach upper-division courses for majors or lead a graduate seminar.

How can faculty be encouraged to teach general education?

- One option is to offer faculty members a financial bonus for teaching general education courses. At UC San Diego, faculty who teach college core courses (the heart of the freshman general education program in several of the undergraduate colleges) receive modest support for research-related expenses the first time they teach a core course, and a lesser sum for each additional time they teach. Faculty across the UC campuses who teach freshman seminars receive $1,500 in research funds. The amounts are modest and no doubt would be more effective if increased.

- A faculty member's total teaching obligation can be reduced as a reward for teaching general education courses. The Chemistry Department at UC San Diego, for instance, gives extra teaching credit to faculty who teach large lower-division or introductory courses that enroll both majors and non-majors.

- Faculty can be provided instructional resources when they teach general education courses. At some institutions, basic general education courses have their own office staffs who provide faculty with services such as ordering books, assembling photocopied readers, posting a course web page, and hiring teaching assistants.

- Faculty can be provided moral support from prestigious sources. Are there campus-wide awards for teaching? Often such awards go to faculty who teach popular lower-division or general education courses. Is there an awards ceremony? Does the president, chancellor, or provost attend and speak at the awards ceremony? Does a leading administrator, a distinguished alumnus, or perhaps a leading donor, make remarks about the value of general education? Some high-powered cheerleading for general education can enhance the morale of those who devote time to general education.

This is not to suggest that external rewards alone matter. Many faculty members find intrinsic pleasure in teaching general education courses. Tackling materials beyond one's specialization can be challenging, enlightening, and gratifying. Many faculty appreciate the opportunity to work with colleagues outside of their own departments. Pleasing students at an introductory level and dazzling them with questions that open their eyes to the world is a source of narcissistic satisfaction—a powerful but rarely acknowledged motivation for many academics**.** Yet, the pressure in a research university for faculty to move toward specialization and graduate teaching is great; some measure of countervailing pressures in the form of economic and social rewards can make a difference.

Graduate Students

At most research universities, the first—and sometimes only—instructors that undergraduate students come to know, and become known to, are graduate students. This contact, however, is often governed by the rule that the more a graduate student focuses on his or her advancement in specialized research and on the distinctive language, culture, and presuppositions of the discipline, the more peers and instructors will admire that graduate student and the more successful the graduate student is likely to be in an academic career. Top graduate students are rarely directed to think about teaching and even less frequently urged to think about teaching undergraduate students who have no prospect or intention of becoming professionals in the discipline.

In this climate, what hope is there that undergraduates will learn to appreciate the value of a general education from the graduate students who teach them? There can be no strengthening of general education unless graduate students, as present and future instructors, are themselves welcomed into a culture that prizes general education. They, too, should reap additional rewards when they teach—as they frequently do—in general education courses. They, too, should be recognized with teaching awards. They could also be honored in an annual dinner or symposium on the meaning of general education, or with special invitations to receptions for distinguished visiting artists and lecturers on campus.

Some universities—UC campuses among them—have adopted programs for cultivating the teaching skills of graduate students and providing varying degrees of mentoring and support. Despite this, many graduate students find themselves in front of a classroom with little teacher training or support. In addition to exposing graduate students to the culture of general education, we endorse ongoing efforts to develop general teaching skills among graduate students.

Non-Ladder and Part-Time Faculty

In many institutions, a great deal of instruction in general education falls to non-ladder and part-time faculty. Colleges and universities, more and more dependent on these instructors and increasingly relating to them through standardized contracts negotiated with labor unions, do little to welcome these instructors into the wider culture of the institution. We urge campuses to develop policies and programs of faculty development for non-ladder faculty. These programs should include inviting (but not requiring) temporary faculty to participate in a discussion of the goals and opportunities of higher education, and to attend colloquia, seminars, and other events that advance the aims of general education. More generally, temporary faculty are often isolated from departmental and campus life, which can lead to marginalization and can depress morale. It is likely that the motivation of these faculty would be enhanced by incorporating them more closely and effectively into the intellectual, organizational, and social life of the departments in which they are visiting. Temporary faculty, too, should be eligible for faculty teaching awards.

Advising Staff

At small colleges, academic advising may be done exclusively or primarily by the faculty. At larger institutions, academic advising is normally assigned to staff with specialized training. While advising typically takes place at both the college and departmental levels, at both there is a tendency to rely on non-academic staff personnel. They are typically delegated a great deal of advising responsibility, even though they are, in principle, supervised by academic deans and faculty members, respectively.

Academic advisors are routinely overburdened with student demands. It is likely that many of them have not had much in the way of general education themselves, and it is not practical to require it of them. It is practical, however, to have one or several of the most distinguished faculty on campus address advisors annually in a talk or workshop on topics such as the "Aims of Education" or "The Curriculum Past and Present" or "What Liberal Education Means." These workshops would honor the advisors' important role in undergraduate instruction and remind them, in ways their daily activities rarely allow, about its larger purposes. In addition to exposing advising staff to the aims and values of liberal education, they ought to be reminded often about the actual availability and value of current general education offerings on the campus. Such efforts promise to reinforce the presence and strength of information on general education in the advising culture.

Undergraduates

Students may value general education courses at the time they take them, or in retrospect. Prospectively, however, general education strikes many of them as a deviation from the upward path to marketable skills. National surveys show that students have grown increasingly conscious of economic reasons for attending college: in 1971, 37% of college freshman listed "being very well off financially" as an essential or very important reason to go to college—this rose to 74% in 2001. The goal of gaining "a general education and appreciation of ideas" has held steady as an essential or important reason for attending college—64% of freshman listed it in 1971 and 66% in 2001—though these percentages declined relative to career and economic goals. There is a constituency among students for general education, but the motivation for general education currently finds itself in greater conflict with the pressure of economic and vocational ambitions than in the past.[32]

The simplest way to teach undergraduates the value of general education is to speak to them about its value.[33] We should not allow the brute fact of requirements to substitute for a discussion about why those requirements exist, and we should inform students continuously of non-required opportunities for courses, programs, and activities with a general education component. Moreover, if universities adopt our proposal for clusters of general education courses (named "bundles"), then students who complete these bundles can be rewarded with recognition on their transcripts.

Parents

Many students in the UC system come from families where neither parent attended college. The percentage of immigrants and children of immigrants who attend UC institutions is likewise high. These students are especially likely to appreciate and be encouraged to pursue the vocational side of college education. Even for students from college-educated families, it cannot be guaranteed that their parents gained an appreciation of the value of general education during their own student days. How can universities communicate better with this constituency? Again, the first task is to take on a commitment to do so. One solution that has proved useful is integrating parents into the academic orientation for freshmen.

Chancellors and Presidents

One of the tasks of presidents and chancellors is to articulate and remind the various constituencies of higher education precisely what higher education aims to achieve. No one's words matter more in setting a tone and articulating the aspirations of the institution. This is one important reason for the chief undergraduate education officer to be a part of the chancellor's cabinet. The chancellor or president answers to multiple, powerful constituencies and cannot easily keep general education high on the agenda. The chief undergraduate education officer can remind the chancellor that the job of creating a supportive environment for general education begins with the chancellor. A supportive environment is one in which faculty, staff, graduate students, and undergraduates and their parents are periodically reminded of the liberal aims of higher education. Likewise, it is important to make available material, social, and symbolic awards to encourage the pursuit of liberal education. The chancellor's role here is fundamental. He or she organizes and focuses attention, broadcasts reminders of common values, and offers moral direction. Sunday sermons rarely tell people what they do not already know, but they remind, reinterpret, refocus, and can inspire action. No one in a church can do this as powerfully as the minister; no one in a university can do this with as much impact as the chancellor or president.

Alumni

Alumni can be advocates for general education in the university community. Many alumni feel that the college experience opened their eyes to the world around them, or helped make them citizens of the world rather than provincials. Many recall that their college experience provided not only vocational training but also a general education they have valued over a lifetime. This recognition of the worth of general education should be mobilized. Opportunities for alumni to speak to students about their college experiences can be fruitful. Development officers should be alert to the possibility that some alumni will be interested to support general education programs, not just promising research efforts and new construction.

10 EVALUATING GENERAL EDUCATION COURSES AND PROGRAMS

In putting forth this vision for general education within the University of California, we recognize that this is an era when public higher education must respond to wider pressures for accountability. Nationally, leaders of public campuses and state systems have been making concerted efforts to rethink their instructional practices and establish greater transparency in student outcomes along several dimensions. Higher education researchers have joined in this effort by designing survey instruments that seek to assess undergraduate education. (See, for example, the National Survey of Student Engagement, and Collegiate Results Instrument.[34])

The assessment enterprise is fraught with confusion and controversy, given the absence of consensus on which outcomes should be measured and how. Aside from the inherent methodological challenges, the utility of assessment is questionable in the absence of measures that are standardized over time or across campuses. Another obstacle is that many campuses lack the resources to collect data on current students, let alone the resources to track their graduates.[35]

While we do not wish to jump into the fray of assessing undergraduate education in general, we do think it is worthwhile to discuss the evaluation of general education programs and courses. In principle, the assessment of offerings in general education is possible by specifying particular goals of these offerings with respect to student learning and development and by devising measures to determine how effectively these goals are met. We also know how difficult it is to perform this exercise well. To be specific: 1) input measures, such as time spent teaching, in office hours, or the study time demanded of students, may be necessary for purposes of administrative accounting, but these measures are poor indicators of the quality or effectiveness of the educational process, and 2) output measures are clearly more desirable because they are aimed at measuring effects.

Attaining scientific precision in measuring these effects and demonstrating that they are clearly the effects of the educational experience, and not of something else, is very difficult. For example, measuring student performance by grades that reflect a command of materials is a problematic measure of the quality of educational experience. Self-reports of satisfaction by students, which may be correlated with faculty popularity and level of ease of the subject matter, can be problematic as well if they do not in some way measure the quality of education imparted. Finally, in all cases, a student taking a single course

is experiencing many other things at the same time, including other academic courses, extracurricular activities, and influence from friends. In addition, students undergo rapid personal maturation over the course of their undergraduate years, which may be as, or more, important than the experiences in a given general education course in creating educational effects. Proper assessment of the isolated effects of a single program or course requires a very complex study design involving careful attention to measurement and measurement error, and the use of controls to isolate specific effects—in a word, rigorous clinical trials. In practice, to achieve a fully adequate design and to produce trustworthy results is both arduous and costly.

In light of these considerations, the Commission is obliged to take a middle ground between neglecting evaluation and striving for comprehensive quantitative analyses. We strongly recommend that campuses lay the groundwork to examine the outcomes of general education courses. This would entail requiring those designing general educational programs and courses to: 1) specify the general education goals for student learning, 2) demonstrate the relevance of readings and other curricular materials for these goals, and 3) seek both faculty and student exit interviews about the degree to which they felt targeted goals were achieved in the educational experience. Such practices would operate simultaneously as exercises in quality control and as means for obtaining feedback for instructors and those who oversee general education programs. We also recommend the periodic evaluation of general education programs by outside peers, as is done routinely with graduate programs. Some UC campuses have begun to implement these several practices. And finally, while acknowledging the risk of memory distortion and the tendency to sentimentalize the past, we note the value of interviewing students at various intervals of years and decades after they have graduated in order to ascertain the value of their collegiate general education experiences in later life.

RECOMMENDATIONS OF THE COMMISSION

The following recommendations are directed to the UC campuses in particular, but have implications for public and private universities nationwide.

1. Campuses should systematize their commitment to general education by re-casting and extending the role of chief undergraduate education officers. In particular, these positions should (a) be assured a conspicuous place, voice, and role in the central administration of campuses; (b) be given ample discretionary, renewed annual budgets and other resources to promote courses and programs in general education; and (c) be protected, where appropriate, from routine administrative chores, in order to enhance opportunities for initiative and innovation. (See *Section 4: Integrating General Education into the Fabric of the University.*)

2. Campuses should give high priority to ensuring appropriate incentive structures to enable faculty to participate in general education enterprises, thus easing a principal impediment to faculty involvement in general education. (See *Section 4: Integrating General Education into the Fabric of the University.*)

3. As one alternative to the "cafeteria approach" to general education, in which students choose a set of core courses from an unwieldy list of general education courses, campuses should develop a discrete number of thematic, interdisciplinary bundles or sequences of courses around substantive and timely topics. These packages could be considered a substitute for discipline-based minors and could receive full academic recognition, so indicated on students' transcripts. Students could select any given thematic package voluntarily, but once selected, all of its constituent parts would be required. (See *Section 5: Curricular Innovation in General.*)

4. Campuses should give the highest priority to advancing the civic education and engagement of their undergraduates. In particular, they should expand and consolidate courses and programs that combine (a) students' volunteer service or political work; (b) instruction in the academic significance and importance of that work; and (c) individual or group-based student research related to their community involvement. (See *Section 6: Thinking Through the Civic Dimension.*)

5. The University of California and its campuses should evaluate the implications of advanced placement credit and the academic work of transfer students for the general education of its students. They should cooperate fully and equally with high schools, community colleges, and state universities, in order to safeguard the integrity and maximize the quality and effectiveness of the general education of students who spend only part of their educational careers at the University. (See *Section 7: Transfer of Credits and Transfer Students.*)

6. Administrators and faculty should pursue applications of new information and communication technologies to enhance teaching and learning, and potentially lower costs and increase access to their institutions. At the same time, administrators should assure that educational quality is not inadvertently sacrificed in the process. (See *Section 8: New Technologies and General Education.*)

7. Campus administrators and faculty should actively and continuously strive to educate all of their constituencies on the value, rationale, and goals of general education, making clear the opportunities for its pursuit on their campuses. Academic Affairs, as well as Student Affairs, should engage in efforts to integrate transfer students into the University, with specific course work designed for transfer students (including one-unit courses modeled on freshman seminars). (See *Section 9: Encouraging a Culture that Supports General Education.*)

8. To assure the quality of general education, campuses should (a) establish machinery in their Academic Senate divisions dedicated to initiating, monitoring, and reviewing general education courses, programs, and experiments, and (b) require designers and teachers in general education to provide statements of the goals of their efforts, to specify means of implementing these goals, and subject their work to periodic internal and external evaluation. (See *Section 10: Evaluating General Education Courses and Programs.*)

ENDNOTES

[1] Judith Rodin and Stephen P. Steinberg (eds.), *Public Discourse in America: Conversation and Community in the Twenty-First Century*. (Philadelphia: University of Pennsylvania Press, 2003.)

[2] These positions include the titles of Vice Provost, Associate Vice Provost, or Dean.

[3] John Stuart Mill, "Inaugural Address at St. Andrews," in F. A. Cavenaugh (ed.), *James and John Stuart Mill on Education*. (Cambridge: Cambridge University Press, 1931), p. 132.

[4] John Stuart Mill, *Autobiography*. (London: Longmans, Green, Reader & Dyer, 1873), p. 1.

[5] See, for example, Stanley Katz, "Liberal Education on the Ropes." *The Chronicle of Higher Education,* (April 1, 2005). Available at http://chronicle.com/weekly/v51/i30/30b00601.htm. John Guillory, "Who's Afraid of Marcel Proust? The Failure of General Education in the American University," in David A. Hollinger (ed.) *The Humanities and the Dynamics of Inclusion since World War II*. (Baltimore, MD: The Johns Hopkins University Press, 2006), pp. 25-49. Ernest L. Boyer and Arthur Levine, *A Quest for Common Learning: The Aims of General Education* (Washington, D.C.: Carnegie Foundation for the Advancement of Teaching, 1981). Sheldon Rothblatt, *The Modern University and Its Discontents* (Cambridge: Cambridge University Press, 1997).

[6] California's 1960 Master Plan for Higher Education is the principle of differentiation of functions among the three public segments—universities, state universities, and community colleges. Each is assigned a distinctive package of academic programs and degree-granting privileges. The community colleges typically offer two-year associate degrees, California State University (CSU) campuses confer bachelors and an array of masters degrees, and the University of California offers bachelors, masters, and doctoral degrees (joint doctoral programs between UC and CSU campuses are also in place). The University of California has a mandate to provide professional training in law, medicine, and veterinary medicine, and enhanced responsibility for research. See the UCOP website "Master Plan for Education in California (available at http://www.ucop.edu/acadinit/mastplan/mp.htm).

[7] An "official" definition of liberal education published in 1998 by the American Association of Colleges and Universities incorporates the ingredients we have listed. See Kevin Hovland, *Shared Futures: Global Learning and Liberal Education*. (Washington, D.C.: American Association of Colleges and Universities, 2006), Appendix.

[8] Sheldon Rothblatt, *The Modern University and Its Discontents* (Cambridge: Cambridge University Press, 1997), p. 40.

[9] Clark Kerr, *The Uses of the University* (Cambridge: Harvard University Press, 1963, 2001 5th ed.), p. 15.

[10] Raymond Williams, *The Long Revolution* (New York: Columbia University Press, 1961), p. 337.

[11] Richard Hofstadter, "The Revolution in Higher Education" in Arthur M. Schlesinger, Jr. and Morton White, eds., *Paths of American Thought* (Boston: Houghton Mifflin, 1963), p. 283.

[12] Julie Reuben, *The Making of the Modern University*, (Chicago: University of Chicago Press, 1996), p. 135.

[13] *Ibid,* p. 211.

[14] *Ibid,* pp. 237-238.

[15] *Ibid,* p. 243.

[16] For a description of the near-universality of standard distribution requirements for statewide general education programs, see Robert Schoenberg (ed.) *General Education and Student Transfer: Fostering Intentionality and Coherence in State Systems* (Washington, D.C.: American Association of Colleges and Universities, 2005), p. 9.

[17] For related examples, see a recent initiative of the Carnegie Foundation and Association of American Colleges and Universities: Integrative Learning Project's Public Report, online at http://www.carnegiefoundation.org/files/elibrary/integrativelearning/index.htm

[18] Michael X. Delli Carpini and Scott Keeter, *What Americans Know About Politics and Why It Matters* (New Haven, CT: Yale University Press, 1997). A 2007 PEW Research Center update showed "little change over all levels of public knowledge." PEW Research Center. Online at http://www.people-press.org

[19] U.S. Census data suggest that voter turnout during presidential elections for young voters, ages 18-24, showed a sharp decline between 1996 – 2000; however, voter turnout has been on the incline for more recent elections and is comparable to the 1976 turnout. Interestingly, this pattern reflects behavior for all voters, and turnout is still lower at present than in the 1960s. Young voter turnout for congressional election years has shown a steady decline since 1966, peaking slightly only during the 1982 election and showing a small .4% increase during the 2002 election. Figures for the 2006 election year have not been released at the time of this writing. See: U.S. Census Bureau. "Reported Voting Rates in Presidential Election Years, by Selected Characteristics: November 1964 to 2004." and "Reported Voting Rates in Congressional Election Years, by Selected Characteristics: November 1966 to 2002." Available at http://www.census.gov/population/www/socdemo/voting.html

[20] Linda J. Sax and Alexander W. Astin, cited in Derek Bok, *Universities and the Future of America* (Durham: Duke University Press, 1990), p. 180.

[21] Gregory B. Markus, Jeffrey P. F. Howard, and David C. King, "Integrating Community Service and Classroom Instruction Enhances Learning: Results from an Experiment," *Educational Evaluation and Policy Analysis,* 15(4): 410-419 (Winter 1993).

[22] Derek Bok, *Our Underachieving Colleges: A Candid Look at How Much Students Learn and Why They Should Be Learning More.* (Princeton, NJ: Princeton University Press, 2005), p. 183.

[23] *Washington Monthly,* September 2006, "*The Washington Monthly* College Rankings: National Universities," Available at http://www.washingtonmonthly.com/features/2006/0609.national.html

[24] In June 2005, representatives from all 10 University of California campuses and the Office of the President convened to explore the role of civic engagement. See the Center for Studies in Higher Education's Research and Occasional Paper Series report, *Civic and Academic Engagement in the Multiversity: Institutional Trends and Initiatives at the University of California,* (Berkeley: Center for Studies in Higher Education, 2005). Available at http://cshe.berkeley.edu/publications/publications.php?id=128

[25] Clifford Adelman, *The Toolbox Revisited: Paths to Degree Completion From High School Through College.* (Washington, D.C.: U.S. Department of Education, 2006). Available at http://www.ed.gov/rschstat/research/pubs/toolboxrevisit/index.html. One study of student mobility in the states of Utah, Georgia, and Maryland indicates that almost 60% of baccalaureate degree recipients attended two or more institutions. See Robert Shoenberg (ed.), *General Education and Student Transfer: Fostering Intentionality and Coherence in State Systems*. (Washington, D.C.: American Association of Colleges and Universities, 2005), p. 7.

[26] Elizabeth G. Hill, *Promoting Access to Higher Education: A Review of the State's Transfer Process.* (Sacramento: Legislative Analyst's Office, 2006). Available at http://www.lao.ca.gov/2006/CCC_transfer/CCC_transfer_011706.pdf

[27] See, for example, Carol A. Twigg, "Improving learning and reducing costs: New models for online learning." *EDUCAUSE Review* 38(5): 28-38 (September/October 2003). Available at http://www.educause.edu/ir/library/pdf/erm0352.pdf; the Pew Grant Program in Course Redesign, at The National Center for Academic Transformation (NCAT). Available at http://www.thencat.org/PCR.htm; and the Mellon Cost-Effective Uses of Technology in Teaching (CEUTT) Initiative, Saul Fisher and Thomas I. Nygren, *Experiments in the cost-effective uses of technology in teaching: Lessons from the Mellon program so far*. (New York: The Andrew W. Mellon Foundation, 2000). Available at http://www.ceutt.org/

[28] Diane Harley, Jonathan Henke, and Michael W. Maher. "Rethinking Space and Time: The Role of Internet Technology in a Large Lecture Course," *Innovate,* Vol. 1, No. 1 (October/November 2004). Available at http://cshe.berkeley.edu/publications/publications.php?id=34

[29] Providing undergraduate and high school curricula available free of cost to worldwide audiences (as embodied in the OpenCourseWare movement at MIT http://ocw.mit.edu/index.html) is an emerging phenomenon and may provide an avenue for public universities and colleges to demonstrate their relevance and openness to taxpayers and legislatures (which are usually more interested in an institution's quality of undergraduate education than they are in research preeminence). The movement has potentially large implications for public relations and social good.

[30] The University of California offers online AP courses through UC College Prep Online (UCCP) http://www.uccp.org/. The Michigan State Board of Education approved a new graduation requirement in December 2005 that would make every high-school student in the state take at least one online course before receiving a diploma. See Dan Carnevale, January 6, 2006. "Michigan Considers Requiring Online Course for High-School Students," *Chronicle of Higher Education.* Available at http://chronicle.com/weekly/v52/i18/18a04501.htm.

[31] Daniel Golden, May 9, 2006. "Degrees@StateU.edu Online University Enrollment Soars as Quality Improves." *The Wall Street Journal.* Available at http://online.wsj.com/article/SB114713782174047386.html?mod=googlenews_wsj

[32] Alexander W. Astin, Leticia Oseguera, Linda J. Sax, and William S. Korn, *The American Freshman: Thirty-Five Year Trends 1966-2001* (Los Angeles: Higher Education Research Institute, UCLA, December 2002).

[33] A useful tool is the Association of American Colleges and Universities 2005 pamphlet: *Why Do I Have to Take This Course? A Student Guide to Making Smart Educational Choices.* Available at http://aacu-secure.nisgroup.com/acb/stores/1/product1.cfm?SID=1&Product_ID=107

[34] 2006 National Survey of Student Engagement. Available at http://nsse.iub.edu/nsse_2006/index.cfm

[35] The Secretary of Education's Commission on the Future of Higher Education (available at http://www.ed.gov/about/bdscomm/list/hiedfuture/index.html) may spur efforts to measure student learning at the post-secondary level by offering incentives to colleges and states who report such data. The commission's final report, *A Test of Leadership: Charting the Future of U.S. Higher Education,* (available at http://www.ed.gov/about/bdscomm/list/hiedfuture/reports/final-report.pdf) calls for several changes, including a shift towards a greater focus on student learning by the accreditation system. For a background on the Spellings' Commission, see the Inside Higher Education website (available at http://insidehighered.com/news/focus/commission).

APPENDIX A

Summary of Undergraduate General Education at University of California Campuses

Table A-1: University of California general education requirements, by campus

Campus	General Education Requirements
Berkeley	Each undergraduate college at UC Berkeley has its own set of general education distribution requirements. For Letters and Science (78% of undergraduates), this takes the form of a "breadth" requirement: one course in each of seven areas of knowledge (Arts and Literature, Biological Science, Historical Studies, International Studies, Philosophy and Values, Physical Science, and Social and Behavioral Sciences). In addition, all UC Berkeley students must fulfill an American Cultures breadth requirement. These courses focus on issues in U.S. history, society, or culture, and must also incorporate theoretical or analytical issues regarding race, culture, and ethnicity, and at least three underrepresented populations within American society.
Davis	UC Davis has a campus-wide GE requirement with three components: topical breadth, writing experience, and social and cultural diversity. For the topical breadth requirement, each major is assigned to one of three categories—arts and humanities, science and engineering, and social science—and each student is required to take three approved GE courses from each of the two topical breadth areas that does not include his or her major. For social and cultural diversity, one approved course is required. Writing experience courses must have a specified minimum amount of writing that includes instruction, drafts, and feedback. Three approved courses are required. Some courses contribute simultaneously to more than one part of the GE requirement. In each of the areas, there are many approved courses so that student flexibility and choice are emphasized.
Irvine	Undergraduate students at UC Irvine have three sets of requirements: campus-wide breadth requirement, school-wide requirements, and the requirements of individual majors. Students need to earn 180 units to graduate, and the full breadth requirement specifies a distribution of coursework for up to 76 units. The breadth requirement identifies an array of course options for students and tries to encourage sequences of courses rather than single, unrelated courses. It is organized into eight categories: Writing, Natural Sciences, Social and Behavioral Sciences, Humanistic Inquiry, Mathematics and Symbolic Systems, Language Other Than English, Multicultural Studies, and International/Global Issues.
Los Angeles	In 2002, UCLA replaced its college's divisional-based GE requirements with a 10-course (most with a 5-unit value) GE curriculum centered on three foundation areas of knowledge: Foundations of Arts and Humanities, Foundations of Society and Culture, and Foundations of Scientific Inquiry. As of Fall 2006, all incoming UCLA students will satisfy their GE requirements by taking a requisite number of courses across three foundation areas of knowledge.
Merced	UC Merced enrolled its first class of students in the 2005-2006 school year. Initially, all undergraduate students will be members of College One. College One oversees UC Merced's GE program, which is comprised of a Core Course Sequence and a Freshman Seminar Program. UC Merced's core course, "The World at Home," is divided between students' freshman and junior years. The core sequences focus on introducing students to the issues "facing informed citizens in the 21st century." Students are required to take Core 1 in the first or second semester of their freshman year. In the spring of their junior year, students will take Core 100, a continuation of "The World at Home" which seeks to apply the lessons and themes of Core 1. The aim of Core 100 is to build upon freshman-year core coursework and to provide junior transfer students a core curriculum.

Table A-1: University of California general education requirements, by campus

Campus	General Education Requirements
Riverside	UCR has cafeteria-style distribution requirements. Every student must take classes in World History, Ethnicity, Natural Sciences, and Social Science and Humanities. There is no campus-wide language requirement.
San Diego	UCSD is comprised of six semi-autonomous undergraduate colleges: Revelle, John Muir, Thurgood Marshall, Earl Warren, Eleanor Roosevelt, and Sixth. Each of the colleges has its own general education requirements, allowing undergraduates to choose from among six distinct general education curricula supplementing their major requirements. These curricula range from a very structured liberal arts type program to a program with a broad range of electives. The general education requirements of the colleges are met through a series of courses approved for these purposes. Some courses are the regular course offerings of the instructional units (departments and programs) of the university, other courses have been developed specifically for the purposes of general education.
Santa Barbara	The General Education Program requirements include seven General Subject Areas and five Special Subject Areas. The degree that a student is pursuing (bachelor of arts, bachelor of science, bachelor of fine arts, or bachelor of music) determines the distribution of courses within General Subject Areas. Four of the five Special Subject Area requirements are the same for all degree objectives; the "European Traditions" Special Subject Area requirement applies only to students pursuing their B.A. General Subject Areas include: English Reading and Composition; Foreign Language; Science, Mathematics and Technology; Social Sciences; Culture and Thought; Arts; and Literature. Special Subject Areas include: World Cultures Requirement; Quantitative Relationship Requirement; Ethnicity Requirement; and European Traditions.
Santa Cruz	All undergraduates at UCSC satisfy the same general education requirements, regardless of their residential college affiliation or academic school. The core of the system is a breadth requirement that students satisfy by completing three courses in each of three broad areas of the curriculum: Arts & Humanities, Social Sciences, and Natural Sciences & Engineering. These nine courses are subject to further distribution requirements. In each of the three areas, two courses must be introductions to different disciplines while the third course is a "topical" course with a more interdisciplinary approach. In addition, one course must carry an "arts" designation, one a "quantitative" designation, and one an ethnic studies designation. Two lower-division writing courses are required (beyond the satisfaction of the Entry Level Writing Requirement). There is also a "writing in the disciplines" requirement that "provides instruction and substantial practice in writing within the context of any academic subject."

Table A-2: Recent campus-specific general education initiatives

Campus	Recent General Education Initiatives
Berkeley	■ In 2000, the College of Letters and Science created L&S College Courses for students who wanted to study a subject in more depth than they could in the average introductory course. Some of these courses were interdisciplinary, some approached subjects from various epistemologies, and some examined case studies. This program ran from spring 2000 through spring 2005. ■ In fall 2002, Letters & Science launched a new course for undecided first-semester freshmen entitled "Exploring the Liberal Arts." It is intended to provide an intellectual overview of the College of Letters & Science—from the perspectives of engaging guest speakers chosen from the faculty, deans and recent alumni—and a preview of undergraduate research and other enrichment opportunities. The course goal is to help students become well-informed participants in their own educational experience, so they can make the most of their years in the College. ■ In fall 2005, the College of Letters and Science launched the L&S Discovery Courses program to provide students a more meaningful breadth experience. Only the most outstanding teachers among the faculty are recruited to teach in the program. In the first year, nine of the twenty-one Discovery Courses were taught by recipients of the campus' coveted Distinguished Teaching Award. Some Discovery Courses are developed especially for the program and offered exclusively through L&S; others are existing courses that meet the program's goals, which are now cross-listed with L&S Discovery Courses when they are offered by exceptional teachers.
Davis	■ The campus recently adopted educational objectives for undergraduate students intended to place the GE program in a more general conceptual framework and have given a clearer statement of the campus GE philosophy. In addition, a standing Academic Senate General Education Committee with responsibility for GE policy was established, and general education themes were developed by the College of Agricultural and Environmental Sciences and are coordinated sets of courses that satisfy both of the topical breadth requirements for students with majors in arts and humanities. In some instances, if properly chosen, courses in the theme options could also satisfy the writing and diversity components of GE. ■ The campus was awarded a Hewlett Foundation grant to facilitate improvements to the GE program. One outcome was the creation of the General Education Scholar certificate program. GE Scholars participate in one of the themes above and also take a capstone course that integrates and applies the knowledge gained in the theme. The Hewlett grant also led to improvements to the writing experience component of the GE program. This included strengthening the University Writing Program, which supports the writing instruction in GE writing experience courses. ■ Recently, the General Education Committee put forth a set of proposals that will form the basis for wider campus discussion, in response to a feeling among the faculty that the campus could further enhance the GE program. The Committee also recommended that a joint Senate-Administration task force be formed to lead that effort. It has been appointed and is now engaging its charge.

Table A-2: Recent campus-specific general education initiatives

Campus	Recent General Education Initiatives
Irvine	■ In 2003, the campus established the joint Senate and Administrative UC Irvine Task Force on Undergraduate Education. The Task force was concerned that students were given few opportunities to take electives outside of their majors or to make informed decisions about which disciplines they wanted to pursue. The Task Force made three general recommendations: ■ Emphasize the benefits of not declaring a major to incoming freshman. The campus would instead offer an "Integrated First-Year Experience" (UCLA's Cluster Program provides one model), to expose students to a wide range of disciplines without sacrificing their time to degree. ■ Provide students greater flexibility within the structure of existing majors and breadth requirements. This may involve requiring departments to allow students room for electives within the major, or incorporate a research or practical experience. ■ Create new majors that support interdisciplinary learning. One option might involve creating tran-disciplinary majors, in which students could customize their area of specialization. The Task Force also recommended that multiple departments sponsor a major so that students could study a discipline through a variety of lenses.
Los Angeles	■ In 1994, a faculty-student workgroup was organized to examine the General Education (GE) curriculum at UCLA, and in 1997 issued a report entitled General Education at UCLA: A Proposal for Change. This document called for GE requirements that were "simpler, fewer, more coherent, and clearer in purpose;" a common campus-wide GE curriculum and course list; first year clusters; and a permanent GE oversight authority. ■ In 1996, Judith L. Smith was appointed Vice Provost (VP) for Undergraduate Education and given authority over general education at UCLA. Vice Provost Smith worked with university administrators, Deans, faculty, and Academic Senate committees throughout 1997-98 to draft and implement plans for GE reform, and in 1998-99, Smith launched a pilot GE Cluster Program with the aim of developing ten clusters over five years to enroll up to 45% of the incoming freshman class. During the same academic year, UCLA's Undergraduate Council (UgC) established a GE Governance Committee. ■ UCLA's new GE Governance Committee submitted a formal proposal in January 2001 to replace the UCLA College's divisional based GE requirements with a 10-course (most with a 5-unit value) GE curriculum centered on three foundation areas of knowledge. This GE foundational framework was approved by the College faculty at the end of 2001, and throughout the winter and spring of 2002 three foundation area faculty workgroups evaluated all GE courses, old and new, for certification and inclusion in the new curriculum. This new curriculum was implemented in Fall 2002. ■ In March 2003, the Undergraduate Council adopted a proposal by GE Governance for a campus-wide GE framework based on the foundational area of knowledge model with a common GE course list. In 2004, the School of Arts and Architecture and the School of Theater, Film and Television adopted the foundational area framework and course list. The Henry Samueli School of Engineering and Applied Sciences followed suit in the spring of 2005, as did the School of Nursing at the beginning of 2006. As of Fall 2006, all incoming UCLA students will satisfy their GE requirements by taking a requisite number of courses across three foundation areas of knowledge. ■ During Fall 2005-Winter 2006, the GE Governance Committee established the process by which the GE curriculum for each of the three foundation areas will be reviewed. A review committee for the Foundations of Scientific Inquiry has been appointed and is currently conducting an internal review of the curriculum in this area, to be followed by a full review administered by the Undergraduate Council. Review committees for the Foundations of Society and Culture and the Foundations of Arts and Humanities curricula will be appointed in 2007 and 2008, respectively.

Table A-2: Recent campus-specific general education initiatives

Campus	Recent General Education Initiatives
Merced	■ UC Merced is a new campus. Please see the description of Merced's GE requirements in Table A-1 above. The entire Core Course Sequence will be reviewed by the UCM faculty every four years.
Riverside	■ There are not currently any GE initiatives on the campus, though there is a GE Task Force currently in place. There have not been any recent major changes to the structure of GE at UCR. There have been periodic task forces over the years, but there have not been major changes in GE implementation. ■ At UCR there is currently an effort to create freshman "learning communities" through the establishment of a freshman cluster system in Fall of 2007. Each group of students will travel together into a humanities class, an introductory subject-area class, and a discussion section. These classes will be linked to a freshman seminar and writing section. While this is not a change to GE itself, since it is not required of students, it will be made available to as many students as possible. UCR hopes that this initiative will improve retention and success of freshman, as well as their transition into university-level learning.
San Diego	■ Extensive changes in general education came with the creation of Sixth College, which began enrolling students in Spring 2005. The planning process for the college began with a university-wide colloquium on general education which occurred on February 5, 1999 to which all members of the UCSD faculty were invited. Following this general open meeting (and other activities such as a pre-planning committee which outlined the approaches to planning that should be taken), a Senate-Administration Task Force was appointed to develop a plan for a new college—including its general intellectual theme, its general education approach and general education requirements, its approach to University writing, as well as plans for the physical space needs of a new college. This Task Force submitted its report on June 30, 1999. ■ Following the submission of the plan, a Provost for Sixth College was appointed (Gabrielle Wienhausen) and current faculty were invited to become members of the Sixth College Faculty. Work then began on transforming the general plan into a detailed proposal that could be submitted to and be debated by the Senate. The plan was submitted to the Senate on May 14, 2001. After extensive debate (and some revisions) the plan was accepted by the Senate and Sixth College was launched. Sixth College will graduate its first students in the spring of 2005. ■ The establishment of Sixth College, and by implication, the establishment of a new general education curriculum was the result of a process involving a large number of faculty, administrators, and students. The model is one that is fundamentally different from those in which a single set of general education goals and requirements must be agreed upon for the entire campus. The system employed at UCSD allows six substantially different approaches to general education to co-exist within a single undergraduate student body. All six of the programs are dependent upon the disciplines to provide instruction for some part of the general education program. At the same time, however, through the development of their own core-course sequences, the college curricula are free from the intellectual constraints and sensibilities of disciplinary-based courses for other parts of their general education system.

Table A-2: Recent campus-specific general education initiatives

Campus	Recent General Education Initiatives
Santa Barbara	■ In November 1999, UC Santa Barbara convened a General Education Task Force to review GE requirements, analyze them against GE programs at comparable universities, and recommend possible improvements to the general education program. The task force was also asked to look at the possibility of a community service component, and of additional ethnic studies courses, as part of the university's GE requirements. ■ In May 2002, the task force released its report, and recommended a GE plan with four components: skills courses; core courses; and one course each in ethnic studies and western civilization. There are three categories of skills courses: writing; quantitative reasoning; and foreign language. Core areas include: art studies; literary and textual studies; historical studies; social sciences; and science and mathematics. ■ The task force cited several goals in making its recommendations. Among these goals were: building GE around strong courses designed for non-majors; raising the academic standards in GE classes; providing freshmen with the opportunity to take small classes with regular faculty; increasing the number of GE courses taught by regular faculty; increasing the number of cross disciplinary and inter-disciplinary GE courses; and improving instruction in reading, writing, quantitative and research skills.
Santa Cruz	■ In 1999, a taskforce of the Academic Senate proposed a revision that eliminated the distinction between "introductory" and "topical" courses, directed that the upper-division writing course be delivered in the major, and gave students the option of reducing the number of breadth courses required by satisfying an approved interdisciplinary topical cluster or by completing two years of a second language. The revision was narrowly defeated in the senate due to concerns about sustainability of the upper-division writing requirement and the reduction of required breadth. ■ Since the resolution's defeat, the Committee on Educational Policy has revisited one of the requirement areas each year to review the courses designated in the area to ensure that they remain aligned with the original intent of the requirements.

Table A-3: Freshman and sophomore seminar status at each UC campus	
Campus	**Description of Freshman and Sophomore Seminars**
Berkeley	UC Berkeley's freshman and sophomore seminars were originally launched in 1992. Approximately one hundred seminars are offered each semester. In fall 1992, Berkeley began offering one-unit freshman seminars in every department on campus. At the same time, the existing freshman and sophomore seminars (earning 2–4 units) were expanded considerably. In spring 2002, the College of Letters & Science piloted a new sophomore seminar program, which has since been expanded to become a campus-wide program, and consolidated with the other seminars to create the freshman and sophomore seminars.
Davis	The UC Davis campus offers one- and two-unit freshman seminars. They are not part of the GE program, however. These seminars are open to sophomores and upper classmen after freshmen have enrolled.
Irvine	The freshman seminar program at UC Irvine is limited to 15 students. In 2002, the campus began an initiative to expand the existing freshman seminar program to make them available to all interested freshmen.
Los Angeles	The freshman cluster program includes over 70 five-unit freshman seminars during the spring quarter of each academic year. Freshmen can also enroll in any Fiat Lux freshman seminars, as well as seminars offered by UCLA's Collegium of University Teaching Fellows Program (CUTF). During the 2006-07 academic year, the UCLA College and the Division for Undergraduate Education launched a sophomore seminar sequence pilot to offer students the opportunity to combine a pair of GE courses to fulfill both GE foundation area requirements and the GE seminar requirement.
Merced	UC Merced has freshman seminars that are electives, and while they fill core requirements, they are not required for students nor are staff obligated to teach them. There are no sophomore seminars.
Riverside	UC Riverside offers freshman seminars, as well as a fewer number of sophomore seminars. Seminars are not required for freshman or sophomores.
San Diego	In 2003, UCSD began offering one-unit freshman seminars that typically have an enrollment limit of 20 students. Enrollment priority is given to freshmen.
Santa Barbara	UCSB offers 1-unit freshman seminars which do not carry GE credit. The campus does not offer sophomore seminars.
Santa Cruz	UCSC offers both freshman and sophomore seminars.

APPENDIX B

Chief Undergraduate Education Officers Interviewed		
Mark Appelbaum	Associate Vice Chancellor, Undergraduate Education	UC San Diego
Andrew Grosovsky	Vice Provost for Undergraduate Education	UC Riverside
William Ladusaw	Vice Provost and Dean of Undergraduate Education	UC Santa Cruz
Christina Maslach	Vice Provost for Undergraduate Education and Instructional Technology	UC Berkeley
Gregg Herken	Professor, School of Social Sciences, Humanities and Arts	UC Merced
Sharon Salinger	Dean, Division of Undergraduate Education	UC Irvine
Judi Smith	Vice Provost for Undergraduate Education	UC Los Angeles
Fred E. Wood	Interim Vice Provost, Undergraduate Affairs	UC Davis
Alan Wyner	Dean of Undergraduate Studies	UC Santa Barbara

APPENDIX C

The accuracy of information in this table is deemed reliable but not guaranteed. Reform efforts are often fluid and website addresses can change frequently.

Comparison of General Education Reforms Among Institutions

Institution	Type of Initiative	General Education Program	Year	Link
Columbia University	No known major reforms	■ Students at Columbia College are required to take the core curriculum, which includes courses in the humanities, sciences, contemporary civilizations, and major cultures. Students must also complete foreign language, writing, and physical education requirements.		
Dartmouth College	Curricular Review	■ Dartmouth's general education curriculum is undergoing several changes. For the class of 2007, students will have to take English, a foreign language, a first-year seminar, a world culture and an interdisciplinary class, as well as courses in the arts, literature, philosophical or historical analysis or religion, international or comparative study, social analysis, quantitative and deductive sciences, natural sciences, and technology or applied science. ■ The class of 2008 and beyond must take a course in systems and traditions of thought, meaning, and value, in addition to the aforementioned requirements. ■ It is not clear when these reforms began.	Not Known	http://www.dartmouth.edu/~reg/regulations/undergrad/degree-req.html#ger07
Duke University	Curricular Review	■ The University's Arts and Science Council's report *Curriculum 2000* recommends redesigning Duke's liberal arts curriculum to meet the challenges of the 21st century. The Council launched this initiative in response to a study by Duke's Office of Institutional Research that found that 47 percent of 1996-97 graduating seniors had omitted one area of knowledge (e.g. 10 percent omitted quantitative reasoning, 19 percent omitted a foreign language, etc.). ■ This initiative emphasizes global citizenship, multiculturalism, the ability to see issues from multiple perspectives, ethics, lifelong learning, and citizenship. ■ *Curriculum 2000* recommends that students be required to take courses in four areas of knowledge (arts and literatures; civilizations; social sciences; natural sciences/mathematics); two modes of knowledge (quantitative, inductive, and deductive reasoning; and interpretive and aesthetic approaches); three focused inquiries (cross-cultural; science technology and society; and ethical); and three competencies (research, writing, and foreign language).	1999	http://www.aas.duke.edu/admin/curriculum2000/report.html

Comparison of General Education Reforms Among Institutions				
Institution	**Type of Initiative**	**General Education Program**	**Year**	**Link**
Harvard University	Curricular Review	■ In 2002, the Dean of the Faculty of Arts and Sciences announced that Harvard's undergraduate curriculum would undergo a review. The working groups he created released a report entitled, *A Report on the Harvard College Curricular Review.* ■ The curriculum that the 2004 report recommended emphasizes lifelong learning, critical and creative thinking skills, a large breadth of knowledge, and local and global citizenship. Additional recommendations were made in 2006, including adding American History and Religion. (At the time of this publication, the review was ongoing.)	2004 2006-07	http://www.fas.harvard.edu/curriculum-review/general_education.pdf
Johns Hopkins University	Curricular Review	■ The University's Commission on Undergraduate Education issued a report that contained recommendations for improving the quality of undergraduate education. It found that a liberal arts curriculum should focus on critical thinking skills, global citizenship, an understanding of diverse cultures, lifelong learning, and technological literacy. ■ According to the report, Johns Hopkins was the first higher education institution that was designed to focus on research and graduate education. Thus, undergraduate education has not traditionally been its focus.	2003	http://www.jhu.edu/news_info/reports/cue/
Massachusetts Institute of Technology (MIT)	Curricular Review	■ In 2003, the President convened the *Task Force on the Undergraduate Educational Commons* to examine the goals, content, and structure of undergraduate education. As part of its work, the Task Force will be developing and articulating the content of the curriculum that should be common to all MIT undergraduates. ■ Although MIT's focus is the engineering sciences, students are currently required to complete a humanities, arts, and social science requirement. MIT's mission statement lists humanities, social sciences, and management as core strengths. In 2006, a set of recommendations was made and includes study abroad; updating the traditional core of science subjects; foundational work in the arts, social sciences and humanities; and the elimination of applying AP credits to place out of requirements (except for calculus).	2006	http://web.mit.edu/committees/edcommons/documents/task_force_report.html

Comparison of General Education Reforms Among Institutions				
Institution	**Type of Initiative**	**General Education Program**	**Year**	**Link**
Princeton University	Curricular Review	■ Princeton's general education curriculum is designed to expose students to both specialized and broad areas of knowledge and to teach them critical thinking skills. ■ Princeton's new general education requirements include courses in writing, foreign language (though engineering students are exempt from this), epistemology and cognition, ethical thought and moral values, historical analysis, literature and the arts, quantitative reasoning, social analysis, and science and technology.	1995	http://www.princeton.edu/pr/pub/gen/
Stanford University	Curricular Review	■ The Commission on Undergraduate Education issued a report that recommended improvements in academic advising, curricular changes, and creating a new vice provost post for undergraduate education. ■ The Commission focused their recommended curricular changes on creating a new core science requirement for non-science majors that teaches these students how to think scientifically. It also recommended requiring students to develop a thematic connection among their humanities and social science breadth requirements and to develop common sets of themes for the "Culture, Ideas, and Values" requirements. Finally, it recommended strengthening foreign language and writing requirements, and developing a course on oral communication. ■ The Commission's report led to the development of freshman and sophomore seminar courses and undergraduate research programs. ■ The report also led Stanford to launch its Campaign for Undergraduate Education (CUE). The money for this program was initially used to start up new curricular programs, but is now being used for a host of items that support undergraduate education, from scholarships to student organizations. ■ The CUE has raised over $1 billion thus far.	1994	http://news-service.stanford.edu/news/2005/january12/cue-011205.html http://www.stanford.edu/dept/news/pr/94/941012Arc4101.html

Comparison of General Education Reforms Among Institutions				
Institution	**Type of Initiative**	**General Education Program**	**Year**	**Link**
State University of New York (SUNY)	Curricular Review	■ The Joint Task Force on General Education for SUNY and the state's community colleges issued a report expressing the need to adopt systemwide general education goals. ■ SUNY responded to this report by adopting Resolution 98-241, which established a 30-credit hour general education core curriculum. The new curriculum was designed to affect student learning outcomes in 10 knowledge and skill areas and two competencies. The knowledge and skill areas include: mathematics, natural sciences, social sciences, American history, western civilization, other world civilizations, humanities, the arts, foreign language, and basic communication. The competencies include: critical thinking and information management (also technological literacy).	1998	http://www.suny.edu/provost/GeneralEducation/campusgenedresources.cfm
University of Chicago	Curricular Review	■ The University developed a set of new general education guidelines in a report entitled, *Three Views of Continuity & Change at the University of Chicago.* ■ The University streamlined its general education requirements so that students could complete these requirements within two years and move on to more specialized studies in their majors. The new general education guidelines also allowed students to fulfill their foreign language requirement by demonstrating proficiency on an exam rather than through coursework. ■ To encourage students to develop their foreign language skills and to gain more exposure to other cultures, the University decided to offer grants to students to study in foreign-language institutes in other countries.	1998	http://www.uchicago.edu/docs/education/continuity-change/index.html
University of Colorado at Denver	Curricular Review	■ The University developed the *Quality Undergraduate Education* project to develop three new programs: a first-year experience program, a revitalized core curriculum, and an honors program. ■ The purposes of this initiative are to raise the quality of the entering class, improve student retention rates, and attract out-of-state students. ■ The development of a proposal for a revitalized core curriculum appears to still be in progress.	2003	http://thunder1.cudenver.edu/ue/QUE.htm

Comparison of General Education Reforms Among Institutions				
Institution	**Type of Initiative**	**General Education Program**	**Year**	**Link**
University of Florida	General Education Curriculum	■ The University has a General Education Council that periodically reviews the curriculum. Currently, the goal of general education at the University of Florida is to provide students a "collective knowledge about the world [that] enables [them] to communicate, to make informed decisions about many aspects of [their] lives, and to understand and participate fully as informed citizens in matters local, national, and global." ■ Six of the students' general education credits must have an international/diversity focus.		
University of Georgia	Curricular Review	■ The University's Council on General Education developed a set of general education learning outcomes that emphasized oral and written communication, quantitative reasoning, science, the arts, and cultural and social perspectives. ■ In 2000, the faculty senate held a symposium on the future of general education in the 21st century to make general observations on the current structure of higher education - whether or not it should be limited to the first two years of undergraduate education or should be integrated into the entire undergraduate experience. The task force report was published in 2006.	2000 2006	http://www.usg.edu/academics/comm/gen_ed/ http://www.curriculumsystems.uga.edu/ucc/ucctaskforce0306.pdf
University of Illinois, Urbana-Champaign	No known major reforms	■ Students are expected to develop fluency and literacy in English, literacy in at least one foreign language, exposure to different disciplines, and intensive study in one discipline (or an interdisciplinary major).		

Comparison of General Education Reforms Among Institutions				
Institution	**Type of Initiative**	**General Education Program**	**Year**	**Link**
University of Massachusetts, Amherst	Curricular Review, Hewlett Grant	■ The University's Task Force on General Education issued a report on improving the general education curriculum. ■ The report found that the main goal of general education should be to make students lifelong learners. To accomplish this goal, students must gain a breadth of knowledge from diverse disciplines. The task force recommended improving students' math, science, and analytical skills and requiring them to take courses in diversity and global perspectives and computer literacy. ■ The University also received $150,000 from the Hewlett Foundation to make general education more student-centered. The campus used the grant money to provide fellowships to teachers that focus on the needs of lower division students.	2000	http://www.umass.edu/senate/fs_docs/SEN_DOC_NO_01-035_GEN_ED.pdf
University of Michigan, Ann Arbor	Curricular Review	■ As part of its accreditation process, the University reviewed its general education programs and issued a report entitled, *New Openings for the Research University: Advancing Collaborative, Integrative, and Interdisciplinary Research and Learning.* ■ Also, the University's College of Literature and Science examined and issued a report on the first-year undergraduate experience. The task force recommended developing the First-Year Seminar program, a quantitative reasoning requirement, and "theme" semesters to integrate learning across departments.	1990 1993-94 1999	http://www.provost.umich.edu/reports/slfstudy/pdf/research.pdf
University of Minnesota	No known major reforms	■ The goals of the University's general education curriculum include: ■ Familiarizing students with the process of liberal learning—acquiring intellectual and communication skills that they can apply to advanced areas of knowledge. ■ Expanding students' intellectual perspectives across many subject areas.		
University of New Mexico	No known major reforms	■ The University has a Bachelor of University Studies program that allows students to develop individualized interdisciplinary majors.		

Comparison of General Education Reforms Among Institutions				
Institution	**Type of Initiative**	**General Education Program**	**Year**	**Link**
University of North Carolina, Chapel Hill (UNC)	Curricular Review	■ The University's Curriculum Review Committee released *Making Connections, an Initial Proposal to Revise the General Education Curriculum*. ■ UNC's revised curriculum now focuses on improving foundational skills in the arts and sciences and training students to become "effective citizens of rapidly changing, richly diverse, and increasingly interconnected local, national, and worldwide communities" in the 21st century.	2003	http://www.unc.edu/depts/uc/docs/curric_version1_4.pdf
University of Pennsylvania	Curricular Review	■ *21st Century Project* – The President charged the Provost's Council on Undergraduate Education (PCUE) to design a model for the University's undergraduate experience according to principles outlined in the President's and Provost's statement on 21st century undergraduate education. ■ This initiative emphasizes local and global citizenship, multiculturalism, technological literacy, and the marriage of theory and practice in instruction (e.g., service learning, research, etc.). As part of this effort, the University developed several multidisciplinary courses.	1995	http://www.upenn.edu/almanac/v41pdf/n34/052595-insert.pdf
University of Texas, Austin	Interdisciplinary programs	■ **Connexus** – a set of programs designed to enhance the undergraduate experience and enable students to experience the breadth of the University's course offerings. These programs include: ■ **Bridging Disciplines** - allows undergraduates to select area requirements, electives, major courses, internships and research experiences that relate to an interdisciplinary theme. ■ **Cross-Cultural Compass** – a searchable database of courses that "explores the richness and variety of cultures and ethnicities within the U.S. and around the world." ■ **EUREKA** – a searchable database of research opportunities around campus.	Not known	http://www.utexas.edu/student/connexus/

Comparison of General Education Reforms Among Institutions				
Institution	**Type of Initiative**	**General Education Program**	**Year**	**Link**
University of Virginia (UVA)	No known major reforms	■ UVA has several liberal arts seminars, and students have the opportunity to develop an interdisciplinary major. ■ The Echols Scholars Program (est. 1960) is an honors program "predicated upon the Jeffersonian ideal of freedom of inquiry and the development of critical thought." This program allows exceptional students to develop their own curriculum rather than satisfy the College's "area" requirements. ■ There is a University of Virginia, College and Graduate School of Arts & Sciences 2005-2015 Strategic Plan online.		http://artsandsciences.virginia.edu/strategicplan/index.php
University of Washington	Curricular Review discussion	■ The faculty senate sponsored a forum about the future of liberal education at the university. ■ The result of these discussions was the establishment of a course on the comparative history of ideas. ■ The faculty, staff, students and supporters of the College of Arts and Sciences are creating a vision and goals statement for the 21st century.		http://www.artsci.washington.edu/Services/Splanning/ASPlan/SPdraft.htm
University of Wisconsin	No known major reforms	■ The University's general education requirements emphasize lifelong learning, critical thinking skills, multiculturalism, and global citizenship. ■ As part of their general education, students are required to take courses in six areas: communication, quantitative reasoning, natural science, humanities/literature/arts, social studies, and ethnic studies.		http://www.ls.wisc.edu/gened/FacStaff/background.htm
Yale University	Curricular Review	■ The president of Yale College convened the Committee on Yale College Education to determine what a Yale graduate needs to know in the coming decades. ■ This report reaffirms Yale's commitment to a liberal education and to undergraduate instruction. However, it departs from other curricular reviews in that it does not emphasize specific areas of knowledge such as ethics or cross-cultural inquiry. ■ The report recommends that students take courses in the social sciences and natural sciences, and courses in any discipline that emphasizes writing skills, quantitative reasoning, and a foreign language.	2003	http://www.yale.edu/cyce/report/index.html

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General Education Upper-Division Thematic: 9 units

9 units required:

One GE goal is to provide you the opportunity to integrate and apply skills and knowledge gained through your college experience to issues and areas of life you will face as a citizen of a complex world. You should be able to relate your major to seemingly unrelated knowledge. To help achieve these goals, *9 of the required 48 GE units* must be selected from upper-division courses within one of the themes described below. Complete 45 semester units before you begin your upper-division theme.

Each of the themes represents a topic of far-reaching concern. In addition to allowing you to immerse yourself in depth in the topic, you have the opportunity to draw from your previous General Education experiences and skills in exploring the dimensions of the theme. The content of the three courses you take will be drawn somewhat equally from the natural sciences, the humanities and fine arts, and the social sciences. But in contrast to the Breadth Areas of General Education, theme courses tend to be more integrative among those three areas.

If you first enrolled in college prior to fall 1993, you may be eligible to follow an earlier version of the 9-unit upper-division requirement. Note the following guidelines:

First-time freshmen who were admitted and matriculated beginning with the fall 1993 semester or thereafter, either at CSU, Chico or at another institution in the CSU or California Community College systems, must select one of the themes described in this section.

Prior college enrollment: If you 1) established catalog rights in the California State University or the California Community Colleges **prior to** fall 1993; 2) earned transferable college credit during that time; and 3) have since remained "continuously enrolled" in an accredited institution of higher learning, you may elect to complete a theme **either** from those described below or from themes which are described in a previous *Class Schedule* or an earlier *University Catalog*. The information is also available on the CSU, Chico Web.

Direct questions with regard to your eligibility for earlier versions of the themes to the Evaluations Office.

You must take all 9 units from within the same theme. Exceptions to this rule are described in the "Majors with Important Modifications to General Education Requirements" section which follows the theme descriptions. In some of the themes, you **must** follow the specified sequence, either beginning with a foundation course, or concluding with a Capstone course.

Theme A: American Identities and Cultures

Theme Coordinator: Matt Blake, THMA 339.

The landscape of American cultures and ideas, and its scientific and technological base, provide a uniquely pluralistic background for individual Americans. This theme investigates important aspects of the rich cultural complexity which contributes to the American cultural landscape. Courses also follow the search for common community, the effects of this search upon an individual's cultural roots, and the possibility of a pluralistic society which embraces cultural diversity. The metaphor of the salad bowl replaces that of the melting pot to reveal the many Americas.

1 course selected from:

GEOS 350	American Science and Technology	3.0	FS	GE
Prerequisites: Completion of the General Education Breadth Areas B1, The Physical Universe, and B2, Life Forms.				
GEOS 351	Science and the American Idea	3.0	SP	GE
Prerequisites: Completion of the General Education Breadth Areas B1, The Physical Universe, and B2, Life Forms.				

1 course selected from:

AMST 345	American Lives	3.0	FA	GE
MCGS 324	Religion and America's Ethnic Minorities	3.0	FS	USD GE

This course is also offered as RELS 324 .

PHIL 306	American Philosophy	3.0	FS	GE
RELS 324	Religion and America's Ethnic Minorities	3.0	FS	USD GE

This course is also offered as MCGS 324 .

1 course selected from:

GEOG 352	The United States	3.0	FA	GE
HIST 332	American Ethnic Origins	3.0	FS	USD GE

This course is also offered as MCGS 332 .

JOUR 310	Entertainment, Mass Media, and American Cultures	3.0	FS	GE

Prerequisites: ENGL 130.

MCGS 332	American Ethnic Origins	3.0	FS	USD GE

This course is also offered as HIST 332 .

Theme B: Contemporary Health Issues

Theme Coordinator: Holly Nevarez, BUTE 647.

With health becoming a national obsession, it is critical that you, as a consumer, be fully informed about the most recent medical findings and health trends. A broad perspective on health beliefs and practices helps us to better understand their impact on our culture. Courses within this theme provide insight into major contemporary health issues, from individual as well as societal viewpoints. The impact of politics, economics, culture, and ethics upon health will be addressed.

1 course required:

PHIL 327	Biomedical Ethics	3.0	FS	GE

1 course selected from:

BIOL 345	Biology of Cancer	3.0	FS	GE

Prerequisites: Onve lower-division course in Biological Sciences.

NFSC 303	Nutrition and Physical Fitness	3.0	FS	GE

Prerequisites: One lower-division course in biological sciences.

1 course selected from:

HCSV 325	Consumer Health	3.0	FS	GE
HCSV 370	Drugs in Our Society	3.0	FS	GE
SOCI 363	Sociology of Human Stress	3.0	FS	GE

Theme C: Cross-Cultural Exploration

Theme Coordinator: Tony Waters, BUTE 629.

One of the most intriguing aspects of the human experience is how people from different cultures experience reality in often very different ways. Why is this? And how has it come about? You are invited to join in this intellectual adventure to explore across cultures for a greater understanding of the many perspectives and values which provide the richness of the human experience. Guided by the traditions of literature, science, and interdisciplinary area studies, the goal of your exploration is an increased awarenes of the forces of social change which are at work shaping the 21st century. Students are encouraged to enroll in all three theme courses simultaneously.

1 course required:

PSSC 390	Food Forever: Comparisons of Sustainable Food Production Systems	3.0	FS	GC GE

1 course selected from:

CHST 354	Chicano Literature	3.0	FS	USD GE
This course is also offered as SPAN 354 .				
ENGL 353	Multicultural Literature: Issues and Themes	3.0	FS	USD GE
SPAN 354	Chicano Literature	3.0	FS	USD GE
This course is also offered as CHST 354 .				

1 course selected from:

AAST 300	Asian Studies: Contemporary Social Problems and Prospects	3.0	FS	GC GE
This course is also offered as ASST 300 .				
AFRI 300	African Studies: Contemporary Social Problems and Prospects	3.0	FS	GC GE
ANTH 368	Indigenous People of Latin America	3.0	SP	GC GE
ASST 300	Asian Studies: Contemporary Social Problems and Prospects	3.0	FS	GC GE
This course is also offered as AAST 300 .				
HIST 362	History of the Middle East	3.0	FS	GC GE
This course is also offered as MEST 362 .				
INST 327	Social and Institutional Elements of International Trade	3.0	SP	GE
This course is also offered as POLS 343 .				
MEST 362	History of the Middle East	3.0	FS	GC GE
This course is also offered as HIST 362 .				
POLS 343	Social and Institutional Elements of	3.0	SP	GE

	International Trade			

This course is also offered as INST 327 .

SOCI 354	Global Persepctives on Ethnicity and Nationalism	3.0	INQ	GC GE

Theme D: Environmental Issues

Theme Coordinator: Tom Imhoff, TRNT 107.

Humans, like all creatures, are affected by their environment. Yet humans are unique in their ability to modify their surroundings. This theme explores the many ways in which humans use and abuse the environment. The theme objectives are 1) to impart an understanding of and an appreciation for the place of the human species in the global ecosystem; 2) to examine the ways that the environment has influenced human behavior; 3) to provide skills and information necessary to asses human impact and 4) to pursue ways to maintain Earth's life-support systems.

1 course selected from:

BIOL 334	Conservation Ecology		3.0	FS	GE
Prerequisites: One biological sciences course.					
GEOS 330	Environmental Science		3.0	FS	GE
Prerequisites: One course from Breadth Area B1 and one course from Breadth Area B2 of the General Education requirements.					
GEOS 340	Environmental Geology		3.0	FS	GE
Prerequisites: One course from Breadth Area B1 and one course from Breadth Area B2 of General Education requirements.					

1 course selected from:

ENGL 338	Environmental Rhetoric		3.0	FA	GE
Prerequisite: Engl 130, ENGL 335 recommended.					
PHIL 329	Environmental Ethics		3.0	FS	GE
RELS 347	Cross-Cultural Environmental Ethics		3.0	FS	GE

1 course selected from:

GEOG 304	Environmental Issues		3.0	FS	GE
HIST 341	American Environment		3.0	FS	USD GE
RECR 310	Natural Resources and the Informed Citizen		3.0	FS	GE
Prerequisites: Junior standing.					

Theme E: Ethics and Social Policy

Theme Coordinator: Robert Stewart, TRNT 105.

In this theme you will study the relationship between moral values you, as a member of society, hold, and their embodiment in the social institutions which affect your daily life. In this theme, you will explore ethics as a philosophical theory, a social and cultural phenomenon, and as a matter of practical decision-making. The study of ethics cuts across disciplines and will allow you to select a capstone course close to your own interests.

1 course required:

GEOS 354	Science and Ethics	3.0	SP	GE

Prerequisites: Completion of the General Education Breadth Area B requirement, PHIL 321.

1 course selected from:

PHIL 321	Ethics and Human Happiness	3.0	FS	GE
PHIL 326	Social Ethics	3.0	FA	GE
RELS 346	Ethical Conflicts and Religious Values	3.0	FS	GE

1 course selected from:

ECON 352	Medical Economics	3.0	FS	GE
This course is also offered as HCSV 333 .				
HCSV 333	Medical Economics	3.0	FS	GE
This course is also offered as ECON 352 .				

Theme F: Gender Perspectives

Theme Coordinator: Kurt Nordstrom, THMA 253.

The Gender Perspectives Theme considers gender as a biological, historical, cultural, economic, and psychological force. It challenges assumptions about gender, and it explores ways of treating human relations and understanding beyond the stereotypes of divisions based on gender. Gender shapes the experience of self and the world so deeply and thoroughly that it almost goes unnoticed even by the most sensitive and intelligent people.

1 course selected from:

MCGS 326	Perspectives on Gender and Disease	3.0	FS	GE
This course is also offered as NURS 326 .				
NURS 326	Perspectives on Gender and Disease	3.0	FS	GE
This course is also offered as MCGS 326 .				

1 course selected from:

MCGS 310	Gay, Lesbian, Bisexual, Transgender, and Queer Issues and Identities	3.0	INQ	USD GE
Prerequisites: MCGS 155 or WMST 170 recommended.				
MCGS 315	Gender and the Stage	3.0	FS	GE

This course is also offered as THEA 315 .

THEA 315	Gender and the Stage	3.0	FS	GE

This course is also offered as MCGS 315 .

1 course selected from:

CMST 334	Gender and Communication	3.0	FS	GE
HIST 335	Women and Gender in American History	3.0	INQ	GE

This course is also offered as WMST 335 .

JOUR 311	Women, Men, and the Media	3.0	SP	GE

This course is also offered as WMST 311 .

WMST 311	Women, Men, and the Media	3.0	SP	GE

This course is also offered as JOUR 311 .

WMST 335	Women and Gender in American History	3.0	INQ	GE

This course is also offered as HIST 335 .

Theme G: Global Issues

Theme Coordinator: Mitchell Johns, PLMS 219.

This theme focuses on the enduring global issues of food, environment, human rights, justice, and social conflict. Exploration of these issues can be done through careful selection of courses in the theme. Global food issues focuses on the area of worldwide food production, distribution, and consumption. It explores crop production systems, biotechnology/GMO, environment, politics, and economics of food production and distribution, hunger and poverty as a method of inquiry into the theme issues. Geopolitics investigates the nature of the world and its physical, cultural, economic, and political evolution and studies how the process of global interdependence, in its clash with local authorities and conditions, forces re- evaluation of the enduring theme issues.

Foundation Course - to be taken first:

1 course selected from:

PHIL 336	American Indian Environmental Philosophies		3.0	FS	USD GE
RELS 332	World Religions and Global Issues		3.0	FS	GC GE

1 course selected from:

GEOS 370	Energy in the Human Environment		3.0	SP	GE

Prerequisites: One course from Breadth Area B1.

PSSC 392	World Food and Fiber Systems		3.0	FS	GC GE

Capstone Course - to be taken last:

1 course selected from:

1 course selected from:

ABUS 390	World Food and Hunger Issues		3.0	FS	GC GE
GEOG 303	Geography and World Affairs		3.0	FS	GC GE
POLS 341	International Relations		3.0	FS	GE

Theme H: Honors

Theme Coordinator: John Mahoney, SSC 440.

We are faced with increasingly complex technology in all aspects of our lives, from medicine and agriculture to communication and international affairs. This technology has advanced more rapidly than our understanding of its social and ethical implications. The Honors theme uses team-taught courses and an independent study opportunity to explore this contemporary dilemma and to enable you to make informed decisions about these complex issues.

You must have been accepted into the Honors Program to enroll in any courses for this theme.

1 course selected from:

BIOL 322H	Science and Human Values -- Honors	3.0	FA	GE
Prerequisites: Acceptance into the Honors Program, faculty permission. This course is also offered as PHIL 322H .				
CSCI 313H	Mind in the Machine - Honors	3.0	SP	GE
Prerequisites: Acceptance into the Honors Program, faculty permission. This course is also offered as PSYC 332H .				
PHIL 318H	Altruism: Theory and Practice	3.0	FA	GE
Prerequisites: Enrolling students must be in good standing in the Honors in GE Program. This course is also offered as PSYC 318H , RELS 318H .				
PHIL 322H	Science and Human Values -- Honors	3.0	FA	GE
Prerequisites: Acceptance into the Honors Program, faculty permission. This course is also offered as BIOL 322H .				
PSYC 318H	Altruism: Theory and Practice	3.0	FA	GE
Prerequisites: Enrolling students must be in good standing in the Honors in GE Program. This course is also offered as PHIL 318H , RELS 318H .				
PSYC 332H	Mind in the Machine - Honors	3.0	SP	GE
Prerequisites: Acceptance into the Honors Program, faculty permission. This course is also offered as CSCI 313H .				
RELS 318H	Altruism: Theory and Practice	3.0	FA	GE
Prerequisites: Enrolling students must be in good standing in the Honors in GE Program. This course is also offered as PHIL 318H , PSYC 318H .				

1 course selected from:

ENGL 316H	Crossing Boundaries: Gender and Modernization	3.0	FS	USD GE

Prerequisites: Junior status at the end of semester in which course is taken and current enrollment in the Honors Program.
This course is also offered as GEOG 316H .

GEOG 316H	Crossing Boundaries: Gender and Modernization	3.0	FS	USD GE

Prerequisites: Junior status at the end of semester in which course is taken and current enrollment in the Honors Program.
This course is also offered as ENGL 316H .

MJIS 356H	Genocide - Honors	3.0	FA	GC GE

Prerequisites: Acceptance into the Honors Program.
This course is also offered as SOCI 356H .

PHIL 318H	Altruism: Theory and Practice	3.0	FA	GE

Prerequisites: Enrolling students must be in good standing in the Honors in GE Program.
This course is also offered as PSYC 318H , RELS 318H .

PSYC 318H	Altruism: Theory and Practice	3.0	FA	GE

Prerequisites: Enrolling students must be in good standing in the Honors in GE Program.
This course is also offered as PHIL 318H , RELS 318H .

RELS 318H	Altruism: Theory and Practice	3.0	FA	GE

Prerequisites: Enrolling students must be in good standing in the Honors in GE Program.
This course is also offered as PHIL 318H , PSYC 318H .

SOCI 356H	Genocide - Honors	3.0	FA	GC GE

Prerequisites: Acceptance into the Honors Program.
This course is also offered as MJIS 356H .

Capstone - to be taken last:

1 course required:

HNRS 366H	Men, Women & the Land: Myths & Realities: Honors	3.0	SP	USD GE
HNRS 398H	Honors GE Special Topics	1.0 -3.0	FS	GE

Prerequisites: Acceptance into the Honors Program, faculty permission.

HNRS 399H	Honors General Education Thesis	3.0	FS	GE

Prerequisites: Acceptance into the Honors Program, faculty permission.

Theme I: Mexico and Central America

Theme Coordinator: Steve Lewis, TRNT 219.

This theme is designed to provide you with a well-integrated set of courses which will enrich your understanding of our unique and complex southern neighbors in Mexico and Central America. We will examine social and political institutions, as well as development of the area's natural resources to learn to understand the future and how the United States, particularly California, can interrelate. The history, politics, diverse social structure, and rich artistic traditions of Mexico and Central America are all expressions of a region that the United States, and particularly

California, needs to understand and appreciate.

Students who select this theme have the option of spending the last six weeks of the semester on an "experiential-living" program in Mexico or Costa Rica. Please see the Latin American Studies Coordinator for more information.

1 course selected from:

LAST 351	Natural History and Ecology of Mexico and Central America	3.0	FS	GC GE
Prerequisites: Completion of the lower-division GE Breadth Area B requirement or faculty permission.				
LAST 351M	Natural History and Ecology of Middle America (Mexico component)	2.0	FA	GC GE

1 course selected from:

LAST 352	Mexico: Literature and Arts	3.0	FS	GC GE
LAST 352M	Mexico: Literature and Arts (Mérida component)	2.0	FA	GC GE

1 course selected from:

GEOG 354	Land and People of Mexico	3.0	FA	GC GE
This course is also offered as LAST 354 .				
GEOG 355	Land and People of Central America and the Caribbean	3.0	SP	GC GE
This course is also offered as LAST 355 .				
HIST 382	History and Politics of Mexico	3.0	FS	GC GE
This course is also offered as LAST 350 .				
LAST 321	Comparative Politics of Central America and the Caribbean Basin	3.0	INQ	GC GE
This course is also offered as POLS 321 .				
LAST 350	History and Politics of Mexico	3.0	FS	GC GE
This course is also offered as HIST 382 .				
LAST 350M	History and Politics of Mexico (Mexico component)	2.0	FA	GC GE
LAST 354	Land and People of Mexico	3.0	FA	GC GE
This course is also offered as GEOG 354 .				
LAST 355	Land and People of Central America and the Caribbean	3.0	SP	GC GE
This course is also offered as GEOG 355 .				
POLS 321	Comparative Politics of Central America and the Caribbean Basin	3.0	INQ	GC GE

This course is also offered as LAST 321 .

Theme J: Minds, Brains, and Machines

Theme Coordinator: Edward Vela, MODC 110.

One of the most extraordinary advances of twentieth century science and technology has been the emergence of artificial intelligence in machines. The very possibility of artificial intelligence inspires profound questions: Can machines think? Can brains be thought of as a kind of machine? Is language necessary for intelligence? Is having a conscious mind necessary for intelligence? How are mind and brain related? In this theme you will learn about the contributions to the interdisciplinary research and debates concerning the nature of intelligence and mind made by scientists and scholars in a variety of fields.

Foundation - to be taken first:

1 course required:

PSYC 321	Brain, Mind, and Behavior	3.0	FS	GE

1 course selected from:

CSCI 380	Machines, Brains, and Minds	3.0	FS	GE

Prerequisites: Junior standing, faculty permission.
This course is also offered as PHIL 364 .

PHIL 364	Machines, Brains, and Minds	3.0	FS	GE

Prerequisites: Junior standing, faculty permission.
This course is also offered as CSCI 380 .

Capstone - to be taken last:

1 course selected from:

CSCI 381	Language, Intelligence, and Computation	3.0	SP	GE
PHIL 363	History of Mind	3.0	FA	GE

This course is also offered as PSYC 363 .

PSYC 363	History of Mind	3.0	FA	GE

This course is also offered as PHIL 363 .

Theme M: Science, Technology, and Society

Theme Coordinator: Leonard Fisk, OCNL 210.

This theme exposes students to concepts and ideas which are a result of scientific applications and investigations. These applications have significant philosophical and moral impacts that affect our professional and private lives. Through lecture, discussion, and frequent writing assignments, students are encouraged to articulate and critically evaluate the ways various disciplines present and grapple with these pressing contemporary concerns.

2 courses selected from:

BIOL 303	Human Genetics	3.0	FS	GE

Prerequisites: One biological sciences course

Prerequisites: One biological sciences course.

BIOL 322	Science and Human Values	3.0	SP	GE

Prerequisites: One biological sciences course.
This course is also offered as PHIL 322 .

OR (the following course may be substituted for the above)

PHIL 322	Science and Human Values	3.0	SP	GE

Prerequisites: One biological sciences course.
This course is also offered as BIOL 322 .

PHIL 370	Philosophy of Science	3.0	FS	GE

Capstone - to be taken last:

1 course selected from:

CSCI 301	Computer's Impact on Society	3.0	FS	WP GE

Prerequisites: ENGL 130 (or its equivalent) with a grade of C- or higher; Junior standing.

MCGS 380	Gender, Science, and Society	3.0	SP	GE

Theme N: War and Peace in the Nuclear Age

Theme Coordinator: Thomas Imhoff, TRNT 107.

This theme examines an issue of universal concern in an age of apocalyptic weapons - the causes of war and prospects for peace. Integrating an array of courses in the sciences, social sciences, and humanities, this theme invites students to draw their own conclusions about the causes and ethics of war and the real possibilities for peace.

1 course selected from:

MATH 302	Science and Strategy in War and Peace	3.0	SP	GE

Prerequisites: Completion of the General Education Breadth Area A4 requirement, Mathematical Concepts.

PHYS 376	Nuclear Science	3.0	FS	GE

1 course selected from:

PHIL 342	Roots of War and Prospects for Peace	3.0	FS	GE
PHIL 344	Comparative Peace Studies	3.0	FS	GE

1 course selected from:

HIST 350	America's Vietnam Experience	3.0	FA	GE
MJIS 356	Genocide	3.0	FA	GC GE

This course is also offered as SOCI 356 .

POLS 344	U.S. Foreign Policy	3.0	FS	GE
SOCI 356	Genocide	3.0	FA	GC GE

This course is also offered as MJIS 356 .

Theme O: Women's Issues

Theme Coordinator: Katherine McCarthy, TRNT 237.

This theme is designed to provide a variety of perspectives on women within the United States and globally, including psychological, social and cultural issues, artistic and religious expression, political and scientific involvement, and health concerns. These perspectives are explored and analyzed to help students, both male and female, appreciate the contributions of women and to understand the issues that affect women's lives.

1 course selected from:

HCSV 368	Women's Health	3.0	FS	GE

This course is also offered as NURS 368 , WMST 368 .

NURS 368	Women's Health	3.0	FS	GE

This course is also offered as HCSV 368 , WMST 368 .

WMST 368	Women's Health	3.0	FS	GE

This course is also offered as HCSV 368 , NURS 368 .

1 course selected from:

ENGL 360	Women Writers	3.0	FS	GE

This course is also offered as WMST 360 .

RELS 375	Women and Religion	3.0	FS	GE

This course is also offered as WMST 375 .

WMST 360	Women Writers	3.0	FS	GE

This course is also offered as ENGL 360 .

WMST 375	Women and Religion	3.0	FS	GE

This course is also offered as RELS 375 .

1 course selected from:

POLS 324	Women and Politics	3.0	FS	GE

This course is also offered as WMST 324 .

PSYC 345	Psychology of Women	3.0	FS	GE
SOCI 335	Women, Work, and Family	3.0	SP	GE
WMST 324	Women and Politics	3.0	FS	GE

This course is also offered as POLS 324 .

WMST 333	Women Internationally	3.0	FS	GC GE

Theme Q: International Studies Abroad: London, Italy, France, Spain

Theme Coordinator: Frank Li, SSC 440.

Students who participate in the London Semester or in the CSU International Program in France (Aix-en- Provence or Paris), Spain (Madrid or Granada), or Italy (Florence) are eligible to complete two out of the three required courses for this upper- division theme during their study abroad. The third upper-division course, BIOL 302, must be taken at Chico State. Early and frequent consultation with the theme coordinator is indispensable.

Theme R: Global Music, Culture, and Technology

Theme Coordinator: Hope Smith, PAC 203.

Music has always been an integral part of civilization. For many people, it is a significant part of their spiritual being and a valued companion in their lifelong search for meaning. This theme examines the nature of seven styles of contemporary global music and how they can be understood through the study of surrounding culture and influenced by the historical development of musical technology and its basis in concurrent science.

Students will explore: 1) rural blues of 20th century America, 2) son and salsa from Cuba, 3) the Beatles from England, 4) reggae from Jamaica, 5) Afro-pop from Senegal/Mali, 6) Aboriginal rock from Australia, and 7) rap from the United States. For each musical style, students will listen to and study the nature of the music in the capstone course, Case Studies in Global Music (MUSC 395), in an emphatically non-technical manner. Previously, students will have examined how culture works and generates musical meaning in American Popular Culture (AMST 335) and will have explored the science of music and the history of music technology in Sound in the Environment (PHYS 360).

Students will listen to a lot of music. In addition, classroom instruction will include lecture, discussion, video and film, live performance, experiments, computer demonstrations, concert attendance, and group projects.

2 courses required:

AMST 335	American Popular Culture	3.0	FS	GE
PHYS 360	Sound in the Environment	3.0	FS	GE

Capstone - to be taken last:

1 course required:

MUSC 395	Case Studies in Global Music	3.0	FS	GC GE

Theme S: Wealth, Power, and Inequality

Theme Coordinator: Eric Gampel, TRNT 115.

Inequalities in wealth and status are universal social phenomena and give rise in all societies to important issues regarding the distribution of income, wealth, and opportunities for mobility. The discussion requires empirically identifying the extent of inequality as well as identifying the causal structural mechanisms in society that give rise to inequality. Finally, there is the normative issue of fairness, of distributional justice. This theme integrates these three areas to provide students with a comprehensive understanding of the nature of inequality, and to prepare them to contribute thoughtfully to the ongoing public dialog over issues of wealth, power, and inequality.

Foundation - to be taken first:

1 course required:

MATH 304	Statistical Tests for Inequalities	3.0	FS	GE

Prerequisites: Completion of General Education Breadth Area A4 requirement.

1 course selected from:

PHIL 341	Justice and Human Rights	3.0	FS	GE
RELS 343	Wealth, Power, and Justice	3.0	SP	GE

1 course selected from:

ECON 340	Work, Wealth, and Income Distribution	3.0	FS	GE
SOCI 340	Sociology of Wealth and Inequality	3.0	INQ	GE

Theme T: The Child

Theme Coordinator: Chris Coughlin, MODC 107.

As we move into the 21st century, it is vital to remind ourselves that children are society's most important resource. How a society values and raises its children augurs much about the future of that society. This theme is designed to help students learn about children's physical, psychological, emotional, and social development, and how growth and development are impacted by the environments in which children are raised--from smaller family units to larger cultural systems.

However, this theme is about more than the biological and behavioral study of child development. This theme also considers development in the light of a broader and deeper examination of historical and contemporary conceptualizations of childhood as revealed in world literature and philosophies. Furthermore, this theme provides students the opportunity to examine a wide range of critical and persistent social, political, economic, health, and moral issues children and their presence in society raise, both generally and as individuals.

Foundation - to be taken first:

1 course selected from:

CHLD 362	Issues in Child Development	3.0	FS	GE
PSYC 352	Aids, Aides, and AIDS: A Topical Look at Issues in Child Psychology	3.0	FS	GE

1 course selected from:

BIOL 318	Biology of Childhood	3.0	FS	GE

Prerequisites: One biological sciences course.

HCSV 363	Child Health	3.0	FS	GE

1 course selected from:

ENGL 342	Literature of the Child	3.0	FA	GE
PHIL 323	Moral Issues in Parenting	3.0	FS	GE

Theme U: Catastrophe and Humanity

Theme Coordinator: Karin Hoover, PHSC 226.

All human societies have pondered the meaning of catastrophe as they have experienced, planned for, and recovered from disasters and catastrophic events. This theme explores the range of human responses to catastrophe, not only grief and dismay but also resilience and hope. It provides a variety of perspectives on some perennial issues that societies confront as they seek to adapt to an often unstable and unpredictable world: understanding the relationship between society and nature, the role of civilization in managing crises, the social construction of "normality," the inevitability of change, and the search for meaning.

1 course selected from:

GEOS 355	Geologic Hazards		3.0	FS	GE

Prerequisites: One course from Breadth Area B1 and one course from Breadth Area B2 of General Education requirements.

1 course selected from:

HIST 305	Catastrophes and the Shape of Human History		3.0	SP	GE
RELS 357	End of the World		3.0	FS	GE

1 course selected from:

ANTH 312	Cataclysmic Events in Human Prehistory		3.0	FS	GE
GEOG 306	Geographies of Disaster		3.0	FS	GE

Theme V: Consuming Interests: Food and Society

Theme Coordinator: Lynn Houston, TALR 117.

Contemporary American society is obsessed with food: food and cooking magazines spill over the racks at bookstores and grocery stores, and the Food Network runs shows 24/7, from "Emeril Live" to Rachael Ray; books on eating healthfully (and lavishly!) top the best-seller lists; organic food production is debated on local and national levels; and nutritionists are interviewed from CNN and to the Senate floor. Yet few of us reflect on the significance of food in our everyday lives and in the lives of others around the world. Food is not only fuel required to sustain humans biologically; it functions symbolically and metaphorically, defining who we are, how we view our bodies, and how we view plants and other animals. Through choices of what we eat (or through what the industry chooses for us to eat), we express our identities and cultural ties. Similarly, choices in how we produce, harvest, and distribute our food express historically and culturally specific value systems. In this theme -- through literature, film, the media, popular culture, folklore, archeology, history, nutrition, and agriculture -- students explore the many roles that food plays in our lives--as sustenance, as expression of identity, as entertainment, as ritual, and as a means to bring people together in a community.

1 course required:

ANTH 340	Anthropology of Food		3.0	FS	GC GE

1 course selected from:

NFSC 310	Ecology of Human Nutrition		3.0	FA	GC GE

PSSC 390	Food Forever: Comparisons of Sustainable Food Production Systems		3.0	FS	GC GE

1 course selected from:

ENGL 365	Food and Literature	3.0	FS	USD GE
HUMN 380	Food and Film	3.0	FS	GE

General Education Theme Options

The following section pertains to students who matriculated to UC Davis **prior** to Fall 2011. Students who matriculate for the first time in Fall 2011, or later, should refer to the Revised General Education Requirement.

General Education theme options are sets of GE courses sharing a common intellectual theme. These GE theme options are not a separate element of the GE requirement, but a way of selecting your GE courses so that you may benefit from a coherent focus of study while completing the GE requirement. Completion of a theme satisfies the GE requirement for students with majors assigned to the GE topical breadth area of Arts and Humanities. Students with majors assigned to the topical breadth area of either Science and Engineering or Social Science will need to complete additional GE courses in Arts and Humanities to satisfy the campus GE requirement.

Global Population and Environmental Issues

For centuries, there have been concerns and predictions about population growth and its potential effects on the environment and the quality of life. Perspectives on population and environmental issues often vary based on such factors as gender, social class, culture, nation, race/ethnicity, and religion. In this group of courses, students will learn about the complex interplay among environmental, economic, and ethical issues through the study of global population patterns. They will learn how science addresses the use of natural resources by humans, along with the fundamentals of environmental impacts such as global warming. This option group of courses explores diverse perspectives on global population and environmental issues by examining biological, physical, and social processes that influence the everyday lives of people around the world.

Topics might include the social, economic, and environmental challenges of population growth; and the ethics and dilemmas of natural resource use.

Global Population

Atmospheric Science 5 [or 10]	SciEng, Wrt
Human Development 117	SciEng, Wrt
Agricultural and Resource Economics 15	SocSci, Div, Wrt
Science and Society 1	SciEng or SocSci, Div, Wrt
[or Fiber and Polymer Science 110	SciEng or SocSci, Wrt]
International Agricultural Development 10,	SocSci, Div, Wrt
[or Community & Regional Development 1	SocSci, Div, Wrt]

Biodiversity and Cultural Diversity

The nations with the greatest biodiversity often have tremendous ethnic and cultural diversity. This option examines diversity in many interrelated contexts: biological diversity and the impact of contemporary humans; values and cultural practices in regard to production and consumption; the clothes people wear; creation and use of social spaces; and the preservation of genetic resources for food, fiber, and pharmaceuticals.

Topics might include conservation biology; integration of human and natural systems; cultural expression through clothing and appearance; and discussion of what are cultural and social rights.

Biodiversity and Cultural Diversity

Wildlife, Fish and Conservation Biology 10	SciEng, Div, Wrt
Plant Biology 11	SciEng, Wrt
Textiles and Clothing 7	SocSci, Div, Wrt
Community and Regional Development 2	SocSci, Div, Wrt
Landscape Architecture 2	SocSci, Wrt

Food and Fiber

This option focuses on food and fiber systems, from their plant, animal, or synthetic sources to their ultimate use by humans for health, safety, communication, and pleasure. Understanding these systems enables students to see the connections between the food and clothes that are part of our everyday lives and the scientific, social, and cultural issues that make them so significant to society as a whole.

Topics might include food and clothing safety, quality, and availability; media and consumer perceptions; and cultural histories, values, and meanings.

Food and Fiber

Animal Science 1	SciEng, Wrt
[or Plant Biology 12	SciEng, Div, Wrt]
Nutrition 10	SciEng
and Nutrition 11	SciEng, Wrt
[or Food Science and Technology 10	SciEng or SocSci]
Textiles and Clothing 6	SciEng
Textiles and Clothing 7 or 107	SocSci, Div, Wrt
Science and Society 1	SciEng or SocSci, Div, Wrt
Viticulture and Enology 3	SciEng or SocSci

Changing Agriculture

Changing demographics, environmental issues, and social-political trends in California all play a role in public perceptions and policies related to our food and fiber systems, natural resources, and community values. These perceptions, policies, and values need to be critically examined in the context of larger global economic trends and environmental health and safety. In this option group of courses, students can explore a range of challenging issues related to the complex interplay between rural and urban needs and values.

Topics might include holistic approaches to agriculture; international migration and agricultural development; and how plants and animals influence the course of history.

Changing Agriculture Theme Option

Animal Science 1	SciEng, Wrt
Entomology 110	SciEng, Wrt

Plant Biology 12	SciEng, Div, Wrt
Agricultural and Resource Economics 15	SocSci, Div, Wrt
Environmental & Resource Sciences 121*	SciEng, Wrt
Science and Society 2	SciEng or SocSci, Wrt

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The Essential Learning Outcomes

Beginning in school, and continuing at successively higher levels across their college studies, students should prepare for twenty-first-century challenges by gaining:

Knowledge of Human Cultures and the Physical and Natural World

- Through study in the sciences and mathematics, social sciences, humanities, histories, languages, and the arts

Focused *by engagement with big questions, both contemporary and enduring*

Intellectual and Practical Skills, including

- Inquiry and analysis
- Critical and creative thinking
- Written and oral communication
- Quantitative literacy
- Information literacy
- Teamwork and problem solving

Practiced extensively*, across the curriculum, in the context of progressively more challenging problems, projects, and standards for performance*

Personal and Social Responsibility, including

- Civic knowledge and engagement—local and global
- Intercultural knowledge and competence
- Ethical reasoning and action
- Foundations and skills for lifelong learning

Anchored *through active involvement with diverse communities and real-world challenges*

Integrative and Applied Learning, including

- Synthesis and advanced accomplishment across general and specialized studies

Demonstrated *through the application of knowledge, skills, and responsibilities to new settings and complex problems*

Note: This listing was developed through a multiyear dialogue with hundreds of colleges and universities about needed goals for student learning; analysis of a long series of recommendations and reports from the business community; and analysis of the accreditation requirements for engineering, business, nursing, and teacher education. The findings are documented in previous publications of the Association of American Colleges and Universities: *Greater Expectations: A New Vision for Learning as a Nation Goes to College* (2002), *Taking Responsibility for the Quality of the Baccalaureate Degree* (2004), and *College Learning for the New Global Century* (2007). For further information, see www.aacu.org/leap.

LEAP

The Principles of Excellence

Principle One

Aim High—and Make Excellence Inclusive

Make the Essential Learning Outcomes a Framework for the Entire Educational Experience, Connecting School, College, Work, and Life

Principle Two

Give Students a Compass

Focus Each Student's Plan of Study on Achieving the Essential Learning Outcomes—and Assess Progress

Principle Three

Teach the Arts of Inquiry and Innovation

Immerse All Students in Analysis, Discovery, Problem Solving, and Communication, Beginning in School and Advancing in College

Principle Four

Engage the Big Questions

Teach through the Curriculum to Far-Reaching Issues—Contemporary and Enduring—in Science and Society, Cultures and Values, Global Interdependence, the Changing Economy, and Human Dignity and Freedom

Principle Five

Connect Knowledge with Choices and Action

Prepare Students for Citizenship and Work through Engaged and Guided Learning on "Real-World" Problems

Principle Six

Foster Civic, Intercultural, and Ethical Learning

Emphasize Personal and Social Responsibility, in Every Field of Study

Principle Seven

Assess Students' Ability to Apply Learning to Complex Problems

Use Assessment to Deepen Learning and to Establish a Culture of Shared Purpose and Continuous Improvement

LEAP